2008 Cancer Incidence and Mortality in North Carolina

State Center for Health Statistics

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Introduction

Cancer is a group of diseases in which there is an uncontrolled growth of abnormal cells in a part of the body. Half of all men and one-third of all women in the United States will develop cancer during their lifetimes.[1] In 2008, cancer was the second leading cause of death in North Carolina, trailing heart disease by only 14 deaths.[2] In order to determine the effect cancer has on the state's population, the North Carolina Central Cancer Registry (CCR) collects, compiles and tabulates data regarding the occurrence of cancer and reports the deaths due to cancer within the state. This report is a summary of the incidence of and mortality due to cancer with the most complete and recent data the CCR has available.

Background

The CCR, located in the State Center for Health Statistics (SCHS), was established in 1986. The CCR operates under the authority granted in North Carolina General Statute 130A-208.[3] Legislation declaring cancer reporting to be mandatory in North Carolina became effective in 1947. Authorized funding for establishing a registry, however, was not appropriated until 1986. Between 1986 and 1989, only 50-60 percent of the cases were reported each year. The first year for which relatively complete statewide reporting was achieved was 1990. In 1999, new legislation was passed that requires every healthcare provider that detects, diagnoses or treats cancer cases to report all cases to the CCR.[3]

On a national level, the CCR reports data to the North American Association of Central Cancer Registries (NAACCR)[4] and the Centers for Disease Control and Prevention National Program of Cancer Registries (NPCR).[5] Both organizations annually review the data the CCR submits for its completeness, quality and timeliness. Completeness is the percentage of cases reported. Having high quality data ensures that there are not duplicate records per case and that certain data variables are accurate and complete. In order to meet the timeliness requirement, the data must be submitted within 23 months of the completion of the diagnosis year under review. For the last three years, the CCR has achieved the NAACCR Gold Standard for Registry Certification. This certification is the highest NAACCR standard awarded for completeness, quality and timeliness of data. The CCR continues to meet the requirements for NPCR in order to receive funding and to have data publicized nationally.

Purpose

As a population-based registry, the CCR collects, analyzes and disseminates information on the occurrence of cancer in North Carolina. The data collected include patient demographics (e.g., race, gender and age) and medical information on each cancer diagnosis (e.g., primary site, morphology, stage and first course of treatment). This information is used to improve cancer treatment and identify groups that have higher incidence and mortality from cancer.[6] The CCR preserves the confidentiality of information obtained for medical, educational, research and statistical purposes. No identifying information regarding patients, hospitals or physicians is released except under the conditions specified in General Statute and North Carolina Administrative Code.[3]

2008 Cancer Incidence and Mortality in North Carolina is the 15th annual report of the CCR. The contents of this report represent a summary of the information collected on cancer diagnoses and deaths in 2008. The information includes incidence and mortality counts and rates for all

cancers by county, race, gender and age. The primary goal of this report is to provide cancer data to healthcare planners, researchers and the general public.

Data Sources and Collection

Healthcare providers who detect, diagnose and treat cancer report cases to the CCR. The CCR receives data on death due to cancer from the Vital Records (VR) Unit, also located in the SCHS. The data are coded according to standard procedures and guidelines.

Cancer Incidence

Cancer incidence is the number of newly diagnosed cancer cases, not including recurrences, during a particular time period within a certain population. With each cancer diagnosis or treatment, the healthcare providers report the case to the CCR within six months. The CCR releases data approximately two years after the end of the diagnosis year, due to reporting delay, consolidation of records and cleaning of files.

From each case, the CCR collects patient demographics and medical information on the cancer diagnosis. Some demographics the CCR receives regarding an individual diagnosed with cancer include race, ethnicity, gender, age and residence. In addition, the CCR gathers data such as the first location of the cancer (primary site), the form of cancer (morphology), tumor size and the spread of the cancer (stage). Data regarding first course of treatment and vital status are also collected.

The CCR receives the majority of the cancer incidence data from healthcare facilities (hospitals, cancer centers, dermatology centers, urology centers and surgical oncology centers). Incidence data also come from pathology reports, interstate data exchange, nursing facilities and death clearance cases. There are 144 hospitals which routinely diagnose and treat cancer patients. Of these, 70 have tumor registries where the data are abstracted and submitted to the CCR. There are around 70 physician offices and clinics in North Carolina that report to the CCR. Death clearance cases are cancers reported in death certificates that were previously unreported cancer cases. The CCR received over 67,000 reports from approximately 210 facilities in 2008.

Cancer Mortality

Cancer mortality is the number of deaths due to cancer during a specified time period within a certain population. Death certificates are filed to a county health director within five days. The death certificate is then passed on to VR on the fifth day of the following month.[3]

Once a year, VR provides the CCR with data on the deceased whose primary cause of death is cancer. This information includes demographics on the deceased including race, ethnicity, gender, age and residence. In addition to demographics, a primary cause of death and date of death are also collected.

Differences in Collecting Incidence and Mortality

For many studies, the CCR examines both incidence and mortality. Therefore, it is important to note differences in obtaining incidence data and mortality data. These differences include, but are not limited to, timeliness in reporting (both in state and out-of-state cases) and case finding.

There is a difference in the timeliness of reporting incidence and mortality data of cases reported in the state for North Carolina residents. For incidence data, the healthcare facility is supposed to report the case to the CCR within six months. However, with mortality data, a report of each death is submitted to the VR within two months.

Some people living near neighboring states go outside North Carolina for health care. Also, people may get diagnosed with or die of cancer outside of the state. North Carolina has an exchange agreement for cancer incidence data with 25 states and Washington, D.C., including its border states of Virginia, Tennessee and South Carolina. In addition, North Carolina has an exchange agreement with the other 49 states, as well as with Washington, D.C., and United States territories, for exchanging death certificates. Typically, incidence data is exchanged twice a year while mortality data, monitored by the National Center for Health Statistics (NCHS), is exchanged between states within two months of a death. However, even with these exchange agreements in place, delays or omissions can occur in the interchange of incidence and mortality records.

Although new cancer cases are required by law to be reported to the CCR, there are many that are not. Cases diagnosed in small hospitals that do not have a cancer registry may be under reported. Physicians associated with a large hospital will often report cases via a hospital registrar, but those not affiliated with a hospital may not have ample staff to report cases to the CCR. In the last few years, more cases are being diagnosed and treated in physician offices or surgical oncology centers and may never be referred to an oncologist nor be reported. The CCR has improved the completeness of reporting by recruiting physician offices and pathology laboratories as well as sending staff to smaller facilities to collect the required data. Despite the efforts of the CCR, incidence data are considered to be incomplete. On the other hand, death data are regarded as complete. Therefore, there may appear to be an excess of deaths compared to the number of cases for some cancers in rural counties.

Cancer Classification

The CCR receives an abstract of each medical record from a reporting facility. Each abstract contains specific medical information about the cancer. The cancers are categorized using codes according to the *International Classification of Diseases for Oncology, Third Edition.*[7] Each code is comprised of two pieces: topography and morphology. The topography code tells where the tumor began (primary site). The morphology code tells the type of cell (histology), the way it behaves within the body (behavior) and supplementary information about the tumor (grade). Care must be taken when coding lymphomas and leukemia.

The medical record also contains data regarding the cancer stage. The stage at diagnosis indicates how far the cancer has spread when it is first diagnosed. Knowing the extent of the cancer is important in treatment and prognosis. The CCR commonly uses National Cancer Institute's Surveillance, Epidemiology and End Results Program[8] definitions for staging and groups cancers as in situ, local, regional, distant and unknown.

In the data collected by the CCR, only malignant tumors are included with one exception. Data on benign brain and central nervous system tumors are also reported to the CCR. Only malignant tumors are included in this report. In situ cases are generally reportable to the CCR. However,

these tumors, with the exception of in situ breast and bladder cases, are not used in cancer surveillance nor in cancer incidence statistics. Data on basal and squamous cell skin cancers are not collected by the CCR unless they have spread to tissue beyond the original site. Malignant melanoma may occur at many different body sites; however, this report focuses on melanoma of the skin.

Statistical Methods

Populations not only vary in size, but also in their racial, gender and age breakups. Thus, the counts of cancer incidence and mortality have limitations when comparisons are needed.

Rates are used to show the risk of an event occurring in a population and the CCR presents rates per 100,000 persons. The CCR calculates rates for both incidence and mortality data. A crude rate is found by dividing the number of events (e.g., cancer cases or deaths) for a population of interest in a specified time period by the population of interest at risk during the same time period. This ratio is then multiplied by 100,000 to express it as a rate per 100,000 persons. A crude rate can be expressed as

$$crude\ rate = \frac{count\ of\ events\ for\ a\ population\ of\ interest}{population\ of\ interest\ at\ risk} \times 100{,}000.$$

Crude incidence and mortality rates for 2008 used the population estimates obtained from the NCHS. Incidence reports published by the CCR prior to 2005 were calculated using the State Demographer's population estimates. Hence, rates from reports prior to 2005 are not comparable to rates in this report.

Age-Specific Rates

An age-specific rate is an example of a crude rate where the population of interest is a specific age group. For age group *i*, an age-specific rate can be calculated as

$$age\text{-}specific\ rate_i = \frac{count\ of\ events\ for\ age\ group_i}{population\ of\ age\ group_i\ at\ risk} \times 100{,}000.$$

A typical way to divide age groups is in five year increments (0-4, 5-9, …, 80-84, 85+). In this report, the ages are grouped as 0 to 19 (pediatrics), 20 to 44 (young adults), 45 to 64 (middle-aged adults) and 65 and older (senior adults).

Age-specific rates are used to examine the burden cancer has on a particular age group and to determine the need for services for a given population. In addition, they can be used to compare different population groups of the same age and notice the effect that cancer has on the various populations. Within a population, age-specific rates can be used to examine how cancer burden differs between age groups.

Age-Adjusted Rates

The occurrence of an event may vary with age, and the age structure of a population can vary as well. Therefore, age-specific rates are not always useful for comparisons and as a result must be adjusted to account for these differences. An age-adjusted rate is a weighted average of the age-specific rates expressed as a rate per 100,000 persons. Age-adjusted rates should be used only if the same standard population is used for computing weights. The standard population provides the proportion of the population in specific age groups and includes information regarding age,

but not race, sex or geographic location. The standard population the CCR uses is the 2000 United States Census population.

To calculate age-adjusted rates, multiply each age-specific rate by the proportion of individuals in that age group in the standard population. For example, for age group *i,*

$$weighted\ rate_i = age\text{-}specific\ rate_i \times \frac{standard\ population\ in\ age\ group_i}{total\ standard\ population}.$$

The age-adjusted rate is the sum of all the weighted age-specific rates. For *n* age groups the age adjusted rate is

$$age\text{-}adjusted\ rate = weighted\ rate_1 + weighted\ rate_2 + \cdots + weighted\ rate_n.$$

An age-adjusted rate allows comparison between populations of different age groups, time periods and/or geographic areas. Age-adjusting ensures that discrepancies in rates of various populations are not a result of differences in age distributions.

Gender-Specific Rates

In addition to computing rates by age, rates can be computed by gender. For both incidence and mortality, gender data are collected by the CCR. Gender-specific rates are used for comparison between different population groups of the same gender and to examine how cancer tendencies differ between males and females. Gender-specific rates are also used when calculating rates that only affect males (e.g., prostate and testes) or females (e.g., ovary and cervix).

Race-Specific Rates

Rates can also be calculated by race. Race-specific rates are used for comparison between different population groups of the race and to examine how the cancer burden varies between racial groups.

Both race and Hispanic ethnicity are collected by the CCR. Race information can be classified as one of the following: white, black, Asian/Pacific Islander, American Indian and other. Although the CCR has five race fields to account for people who are multi-racial, only the primary race is used. Often the CCR reports rates for whites and minorities. Minorities are defined to be blacks, Asian/Pacific Islanders, American Indians and others. To assist in identifying Hispanic ethnicity, the CCR uses the NAACCR Hispanic Identification Algorithm (NHIA). This algorithm uses name, birthplace, gender and race to determine Hispanic ethnicity.[9] Thus, the CCR can report rates on white non-Hispanics, black non-Hispanics, other races non-Hispanics and Hispanics.

Reliability of Rates

Precautions should always be taken when comparing rates. Rates are not a measure of actual risk. They are used to compare cancer burden between time periods, age groups, gender groups and racial groups. Both the size of the numbers and the characteristics of the population are important indicators of the real value of the rate. Rates based on a small number of cases or for sparsely populated geographic areas should be viewed with caution. Small fluctuations can lead to drastic changes. Therefore, sometimes it is more appropriate to look at the number of cases instead of the rates. When the number of events is small, multiple-year summary rates will provide a much better measurement of risk. Expanding the period of time studied enlarges the absolute numbers and adds more credence to a statement regarding a rate.[10]

Limitations of Data

When comparing rates between two populations, the user should note that age structure is the only difference between the populations for which rates have been adjusted. Since county demographics can vary considerably, one needs to be careful not to misinterpret rates. Racial composition, for example, can have a marked influence on the patterns of cancer incidence and mortality. Under-reporting, due to out of state cases or poor case-finding in some non-hospital situations, also needs to be taken into account when making comparisons of cancer data.

Summary of 2008 Cancer Data

The CCR collected approximately 47,588 cases of newly diagnosed cancers and 17,403 deaths due to cancer in 2008 (Table 1). Female breast, lung and bronchus, prostate, and colon and rectum cancers were the leading diagnosed cancers among all gender and races combined. The CCR often refers to these as the top four cancers (Table 2).

Cancer risk is strongly associated with lifestyle and behavior. Dietary patterns, alcohol use, and sexual and reproductive behaviors, which vary by demographic groups, are risk factors of cancer. Cancer is diagnosed more often among older North Carolinians than younger ones. In general, males have a higher burden of cancer compared with females. Overall, non-Hispanic blacks and non-Hispanic whites had the highest incidence and mortality rates when compared with other non-Hispanics and Hispanics. Lung and bronchus cancer was the most common cause of death due to cancer.

Age

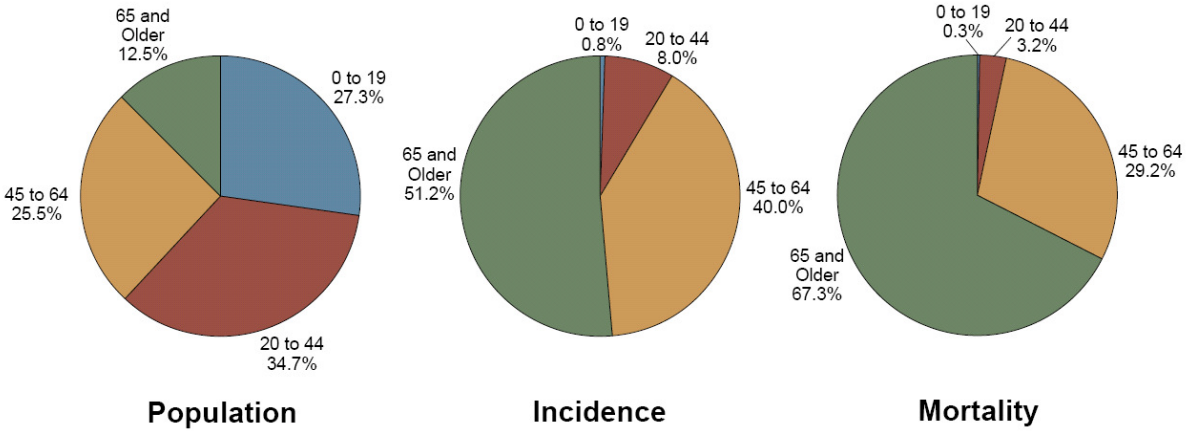
More adults are directly affected by cancer than children. Senior adults made up only 12.5 percent of the population in 2008,[11] but accounted for over 50 percent of newly diagnosed cancer cases and over two-thirds of deaths due to cancer. Children were the second largest age group, but made up less than 1 percent of both newly diagnosed cancers and deaths due to cancer (Chart 1). In 2008, the median age at which cancer was diagnosed was 65, but people ranged in age from 0 to 106. People who died of cancer ranged in age from 1 to 106 with the median age being 71. The median age of incidence and mortality for each age group as well as the percentage of cases and deaths the top four cancers comprise are shown below. In both middle-aged and senior adults, the top four cancers combined accounted for over half of the cancer cases and cancer deaths (Chart 2).

Children (ages 0 to 19) had a very different pattern of cancer than adults. Leukemia, brain cancer, endocrine cancer and lymphomas accounted for over 60 percent of cancers diagnosed in people under age 20. Leukemia, bone and brain cancers made up over two-thirds of pediatric cancer deaths (Tables 5 and 6).

Young adults (ages 20 to 44) had a different pattern of cancer than children. In this age group, there was a greater incidence of colon and rectum, lung and bronchus, and female breast cancers than in the pediatric age group. On the other hand, the frequency of leukemia, bone, liver and brain cancers was lower. Female breast cancer accounted for over 16 percent of all cancer deaths and had the highest mortality rate within this age group. The mortality rate for female breast cancer was three times higher than the next highest cancer rate, lung and bronchus (Tables 5 and 6).

Cancer patterns were different in middle-aged adults (ages 45 to 64) compared with young adults. In this age group, there was a higher frequency of prostate, liver, lung and bronchus, esophageal, and pancreatic cancers. The incidence of Hodgkin disease, testicular and bone cancers was lower. In addition, the number of deaths due to testicular and bone cancers was less. The frequency of prostate cancer deaths was higher for young adults than middle-aged adults (Tables 5 and 6).

Chart 1: 2008 Percentages of NC Population, Cancer Incidence and Mortality by Age



In senior adults (ages 65 and older), cancer patterns were similar to middle-aged adults. In this age group, there was a slightly higher frequency of bladder cancer compared with middle-aged adults. The incidence of testicular cancer continued to be lower. Lung and bronchus cancer accounted for more deaths than colon and rectum, female breast, and prostate cancers combined (Tables 5 and 6).

Chart 2: 2008 Median Age and Percentage of Top Four Sites for Cancer Incidence and Mortality by Age Group

	Incidence		Mortality	
	Median Age	**Top 4 Sites**	**Median Age**	**Top 4 Sites**
Children (ages 0-19)	8	1.0%	13	0.0%
Young Adults (ages 20 to 44)	39	35.3%	40	36.6%
Middle-Aged Adults (ages 45 to 64)	57	57.8%	58	52.1%
Senior Adults (ages 65 and older)	74	57.1%	77	52.3%

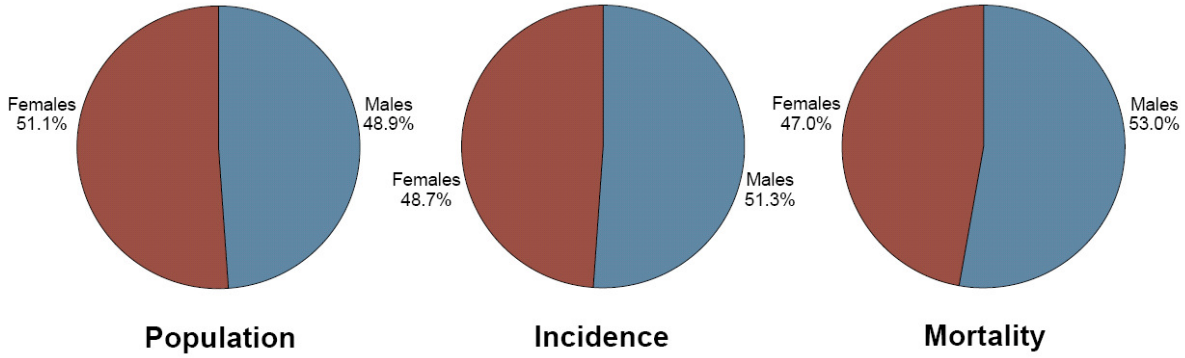
Gender

In 2008, slightly more than 50 percent of the state population was female. However, slightly more than half of all cancer cases were diagnosed in males and a little more than half of deaths due to cancer were in males (Chart 3). The median age of diagnosis for females was slightly less than males, but the median age of mortality was slightly greater than females. The top four sites comprised more than half of both cancer incidence and mortality (Chart 4).

The most frequently occurring cancers among males were prostate, lung and bronchus, colon and rectum, bladder, and melanoma. Lung and bronchus, prostate, colon and rectum, pancreatic, and leukemia were the leading causes of death due to cancer (Table 8).

Among females, the most frequently occurring cancers were breast, lung and bronchus, colon and rectum, uterine, melanoma, and endocrine. Lung and bronchus, breast, colon and rectum, pancreatic, and ovarian were the leading causes of death due to cancer (Table 8).

Chart 3: 2008 Percentages of NC Population, Cancer Incidence and Mortality by Gender



Differences between genders could provide clues to factors involved in the development of cancer. Esophageal, laryngeal, bladder, liver and oral cavity cancers had a higher frequency among males compared with females. However, females had a higher frequency of endocrine and gallbladder cancers compared with males. In males, one third of deaths due to cancer came from lung and bronchus cancer, whereas in females, lung and bronchus cancer constituted a quarter of cancer deaths (Table 7).

Chart 4: 2008 Median Age and Percentage of Top Four Sites for Cancer Incidence and Mortality by Gender

	Incidence		Mortality	
	Median Age	**Top 4 Sites**	**Median Age**	**Top 4 Sites**
Males	65	53.9%	70	51.6%
Females	64	56.5%	72	51.6%

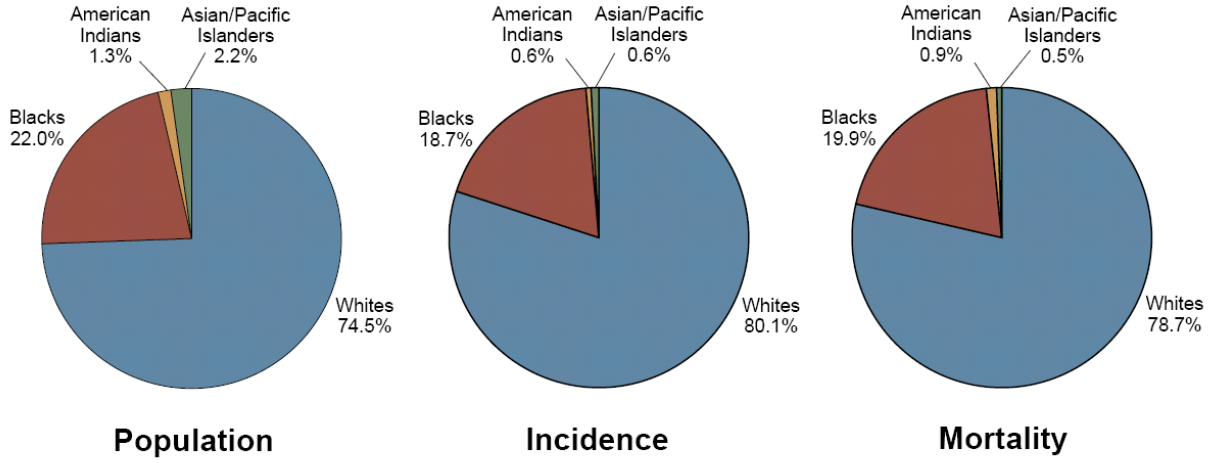
Race and Ethnicity

In 2008, almost 75 percent of the North Carolina population was white. Blacks comprised more than one-fifth of the population. More than 75 percent of cancer cases and cancer deaths occurred in whites and almost 20 percent occurred in blacks (Chart 5). The median age and the percentage the top four cancer sites comprise among all cancers for both incidence and mortality are displayed for all racial ethnic groups (Chart 6). Hispanics were diagnosed with cancer at an earlier age than the other racial groups. Hispanics also had the youngest median age of mortality. Approximately 60 percent of cancer diagnosed in non-Hispanic blacks were from the top four sites.

For non-Hispanic whites, besides the top four cancers, melanoma was the next most frequently diagnosed cancer. Pancreatic cancer was a leading cause of death due to cancer in this group. The number of lung and bronchus cancer deaths was more than 1.6 times as large as the number of deaths due to female breast, colon and rectum, and prostate cancers combined (Table 14).

Among non-Hispanic blacks, prostate cancer comprised almost 20 percent of all diagnosed cancers. Kidney cancer was also among the top five frequently diagnosed cancers for this group. Pancreatic cancer was the next leading cause of death due to cancer after the top four cancers. The number of lung and bronchus cancer deaths was less than the number of deaths due to female breast, colon and rectum, and prostate cancers combined (Table 14).

Chart 5: 2008 Percentages of NC Population, Cancer Incidence and Mortality by Race



For non-Hispanic other races, besides the top four cancers, endocrine cancer was another commonly diagnosed cancer. Liver was the second leading cause of death due to cancer in this group, followed by female breast, colon and rectum, and prostate cancers (Table 14).

For Hispanics, outside of the top four cancers, non-Hodgkin lymphoma was the next most frequently diagnosed cancer. Lung and bronchus cancer constituted less than 20 percent of cancer deaths. For other racial and ethnic groups, lung and bronchus cancers made up over a quarter of cancer deaths. In Hispanics, the most common causes of death due to cancer were lung and bronchus, leukemia, female breast, liver, and stomach cancers (Table 14).

Chart 6: 2008 Median Age and Percentage of Top Four Sites for Cancer Incidence and Mortality by Race and Ethnicity

	Incidence		Mortality	
	Median Age	**Top 4 Sites**	**Median Age**	**Top 4 Sites**
Non-Hispanic Whites	66	54.2%	72	51.6%
Non-Hispanic Blacks	62	60.4%	67	52.9%
Non-Hispanic Other Races	60	49.9%	66	44.6%
Hispanics	51	41.9%	59	36.9%

Conclusion

This descriptive report is intended to serve as a reference on cancer incidence and mortality for healthcare planners, researchers and the general public. This publication should not be regarded as a definitive description of the cancer incidence in North Carolina. Although there are important limitations in the use of these data, the observed number of cases and the calculated rates within a county, a gender group, a racial and ethnic group, or an age group have many uses.

These uses include planning and evaluating health services at the county and state level and identifying cancer disparities between specific groups. The data provided by the CCR can be used by the Comprehensive Cancer Program in the Division of Public Health and other research organizations for prevention, detection and treatment of cancer.

The editors would like to thank Ann Farmer, Christian Klaus, Karen Knight, Sandy Overton, Chandrika Rao and the other members of the CCR staff for their contributions to this report.

Available Cancer Information

North Carolina Central Cancer Registry
www.schs.state.nc.us/SCHS/CCR 919-715-4574

North Carolina State Center for Health Statistics
www.epi.state.nc.us/SCHS 919-733-4728

North Carolina Breast and Cervical Cancer Control Progam
http://bcccp.ncdhhs.gov 919-707-5300

North Carolina CCR Rapid Case Ascertainment
http://unclineberger.org/rapid-case-ascertainment 919-966-0032

American Cancer Society
www.cancer.org 1-800-ACS-2345

National Cancer Institute
www.cancer.gov 1-800-4-CANCER

Surveillance Epidemiology and End Results
http://seer.cancer.gov

Cancer Control P.L.A.N.E.T.
http://cancercontrolplanet.cancer.gov

NCI State Cancer Profiles
http://statecancerprofiles.cancer.gov

National Program of Cancer Registries
www.cdc.gov/cancer/NPCR

North American Association of Central Cancer Registries
www.naaccr.org

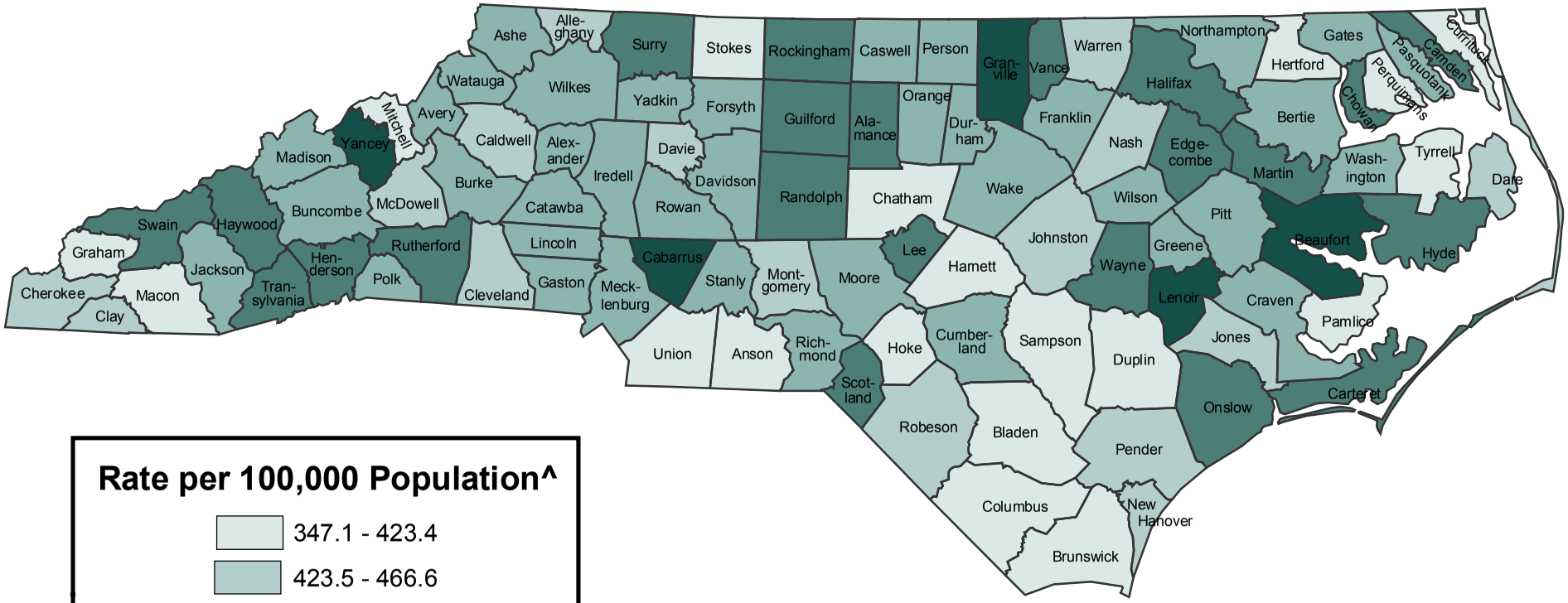
Centers for Disease Control and Prevention
www.cdc.gov

CDC Wonder United States Cancer Statistics
http://wonder.cdc.gov/cancer.html

Association of North Carolina Cancer Registrars
www.ncregistrars.com

National Cancer Registrars Association
www.ncra-usa.org

Map 1: 2008 North Carolina Cancer Incidence Rates by County

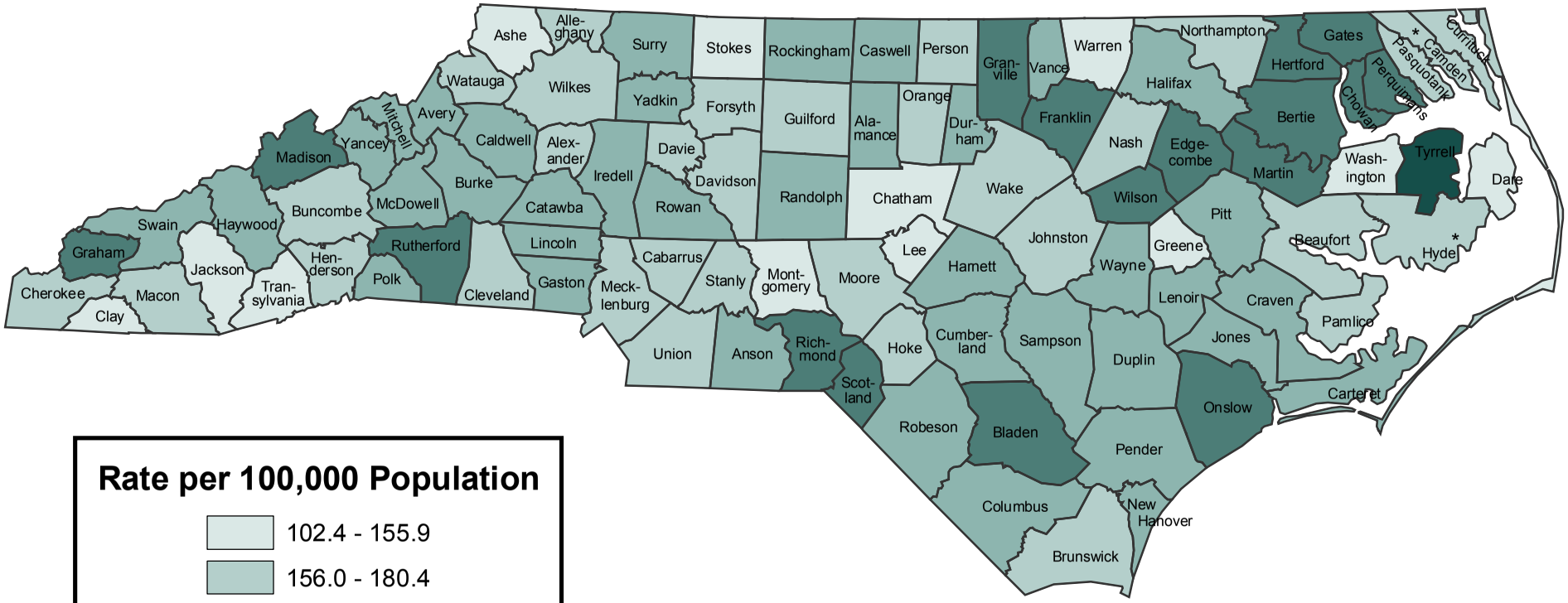


Rate per 100,000 Population^

- 347.1 - 423.4
- 423.5 - 466.6
- 466.7 - 507.1
- 507.2 - 552.9
- 553.0 - 593.5

^ Rates are based on cases reported to North Carolina Central Cancer Registry and are subject to change as files are updated.

Map 2: 2008 North Carolina Cancer Mortality Rates by County



*Rates based on counts less than 16 are unstable and should be used with caution.

Table 1: 2008 North Carolina Cancer Incidence and Mortality

	Incidence		Mortality	
	Cases	**Rate**	**Deaths**	**Rate**
All Cancers	47,588	488.2	17,403	181.7
Oral Cavity and Pharynx	1,231	12.3	248	2.5
Lip	54	0.6	4	0.0
Tongue	320	3.2	54	0.6
Salivary Glands	126	1.3	16	0.2
Floor of Mouth	83	0.8	2	0.0
Nasopharynx	53	0.5	19	0.2
Oropharynx	67	0.7	25	0.2
Hypopharynx	73	0.7	15	0.2
Other Mouth and Pharynx	455	4.6	113	1.1
Digestive System	7,595	78.0	3,874	40.2
Esophagus	499	5.0	357	3.6
Stomach	544	5.6	310	3.3
Small Intestine	221	2.2	40	0.4
Colon and Rectum	4,154	42.9	1,480	15.4
Anus and Anal Canal	162	1.6	23	0.2
Liver and Intrahepatic Bile Duct	591	5.9	522	5.3
Gallbladder	93	1.0	63	0.7
Pancreas	1,072	11.0	998	10.4
Other Digestive Organs	259	2.7	81	0.8
Respiratory System	7,780	79.8	5,517	57.3
Larynx	450	4.5	138	1.4
Lung and Bronchus	7,164	73.6	5,352	55.6
Other Respiratory Organs	166	1.7	27	0.3
Bones and Joints	80	0.9	43	0.5
Soft Tissue including Heart	311	3.3	109	1.2
Malignant Melanoma of the Skin	2,090	21.8	291	3.1
Breast	8,129	83.4	1,257	13.0
Invasive Breast	6,543	67.3		
In Situ Breast	1,586	16.1		
Female Genital System	2,422	45.8	784	14.2
Cervix Uteri, Invasive	343	7.0	111	2.1
Uterus (Corpus, NOS)	1,224	22.6	207	3.7
Ovary	628	11.9	411	7.5
Other Female Genital Organs	227	4.3	55	1.0

Rates are per 100,000 persons and are age-adjusted to the 2000 U.S. Census.

Cancers of the urinary bladder and female breast include *in situ* cases.

Brain and other central nervous system cancer excludes benign cases.

Rates based on counts less than 16 are unstable and should be used with caution.

Rates are calculated using the bridged-race population estimates obtained from the National Center for Health Statistics available online at www.cdc.gov/nchs/nvss/bridged_race/data_documentation.htm#vintage2009.

Table 1 (continued): 2008 North Carolina Cancer Incidence and Mortality

	Incidence		Mortality	
	Cases	**Rate**	**Deaths**	**Rate**
Male Genital System	7,155	158.5	915	25.9
Prostate	6,896	152.6	895	25.5
Testis	215	4.8	11	0.3
Penis	38	0.9	8	0.2
Other Male Genital Organs	6	0.2	1	0.0
Urinary System	3,636	37.8	800	8.5
Urinary Bladder	1,971	20.7	373	4.0
Kidney and Renal Pelvis	1,593	16.3	399	4.2
Ureter	53	0.6	11	0.1
Other Urinary Organs	19	0.2	17	0.2
Eye and Orbit	87	0.9	6	0.1
Brain and Other CNS	569	5.9	403	4.2
Endocrine System	1,187	12.6	72	0.8
Thyriod Gland	1,130	11.9	47	0.5
Other Endocrine and Thymus	57	0.6	25	0.3
Lymphomas	2,046	21.5	583	6.2
Hodgkin Disease	245	2.7	34	0.4
Non-Hodgkin Lymphoma	1,801	18.9	549	5.8
Multiple Myeloma	649	6.7	374	3.9
Leukemia	1,047	11.0	614	6.6
Acute Lymphocytic Leukemia	121	1.3	33	0.4
Chronic Lymphocytic Leukemia	347	3.6	130	1.4
Acute Myeloid Leukemia	324	3.4	248	2.6
Chronic Myeloid Leukemia	134	1.4	29	0.3
Other Leukemia	121	1.3	174	1.9
Other Cancers - Uncategorized	1,574	16.6	1,513	15.9

Rates are per 100,000 persons and are age-adjusted to the 2000 U.S. Census.

Cancers of the urinary bladder and female breast include *in situ* cases.

Brain and other central nervous system cancer excludes benign cases.

Rates based on counts less than 16 are unstable and should be used with caution.

Rates are calculated using the bridged-race population estimates obtained from the National Center for Health Statistics available online at www.cdc.gov/nchs/nvss/bridged_race/data_documentation.htm#vintage2009.

Table 2: 2008 North Carolina Top Ten Cancer Incidence and Mortality Sites

Incidence			Mortality		
	Cases	**Rate**		**Deaths**	**Rate**
Female Breast	8,043	152.4	Lung and Bronchus	5,352	55.6
Lung and Bronchus	7,164	73.6	Colon and Rectum	1,483	15.4
Prostate	6,896	152.6	Female Breast	1,250	12.9
Colon and Rectum	4,154	42.9	Pancreas	998	10.4
Melanoma (Skin)	2,090	21.8	Prostate	895	9.7
Urinary Bladder	1,971	20.7	Leukemia	614	6.6
Non-Hodgkin Lymphoma	1,801	18.9	Non-Hodgkin Lymphoma	549	5.8
Kidney	1,593	16.3	Liver	522	5.3
Uterus (Corpus, NOS)	1,224	22.6	Ovary	411	4.3
Endocrine	1,187	12.6	Brain and Other CNS	403	4.2

Rates are per 100,000 persons and are age-adjusted to the 2000 U.S. Census.

Cancers of the urinary bladder and female breast include *in situ* cases.

Brain and other central nervous system cancer excludes benign cases.

Rates are calculated using the bridged-race population estimates obtained from the National Center for Health Statistics available online at www.cdc.gov/nchs/nvss/bridged_race/data_documentation.htm#vintage2009.

Table 3: 2008 Cancer Incidence and Mortality by County

	Incidence		Mortality	
	Cases	**Rate**	**Deaths**	**Rate**
North Carolina	47,588	488.2	17,403	181.7
Alamance	845	513.1	310	183.5
Alexander	210	491.7	72	179.3
Alleghany	73	436.3	29	168.0
Anson	122	418.3	55	186.6
Ashe	173	472.5	56	145.4
Avery	117	506.3	45	197.2
Beaufort	361	566.4	114	175.1
Bertie	124	502.8	63	246.2
Bladen	157	422.8	90	241.1
Brunswick	603	386.1	258	168.5
Buncombe	1,429	502.9	505	171.6
Burke	526	494.2	224	204.1
Cabarrus	930	586.4	267	173.7
Caldwell	428	441.9	199	207.2
Camden	51	529.3	15	164.0
Carteret	487	545.2	172	186.5
Caswell	142	484.9	60	210.9
Catawba	858	481.7	329	186.8
Chatham	290	381.1	116	151.2
Cherokee	189	450.2	78	177.7
Chowan	113	552.9	52	244.5
Clay	72	427.4	24	138.1
Cleveland	550	466.6	207	176.1
Columbus	264	395.0	123	190.3
Craven	581	500.1	236	202.8
Cumberland	1,271	480.1	489	196.7
Currituck	105	412.5	43	174.0
Dare	196	455.2	64	155.9
Davidson	891	494.4	316	178.9
Davie	221	450.0	80	158.3
Duplin	235	411.1	105	187.9
Durham	1,106	483.8	407	185.6
Edgecombe	291	526.7	138	266.7
Forsyth	1,911	500.8	666	177.1

Rates are per 100,000 persons and are age-adjusted to the 2000 U.S. Census.

Cancers of the urinary bladder and female breast include *in situ* cases.

Brain and other central nervous system cancer excludes benign cases.

Rates based on counts less than 16 are unstable and should be used with caution.

Rates are calculated using the bridged-race population estimates obtained from the National Center for Health Statistics available online at www.cdc.gov/nchs/nvss/bridged_race/data_documentation.htm#vintage2009.

Table 3 (continued): 2008 Cancer Incidence and Mortality by County

	Incidence		Mortality	
	Cases	**Rate**	**Deaths**	**Rate**
Franklin	286	476.1	125	214.1
Gaston	1,115	494.5	429	191.0
Gates	68	499.1	29	220.3
Graham	49	409.8	25	223.4
Granville	333	560.4	142	252.9
Greene	105	496.7	31	153.4
Guilford	2,651	543.4	822	168.9
Halifax	354	520.7	128	187.0
Harnett	413	420.3	181	198.7
Haywood	429	517.5	163	183.8
Henderson	820	522.2	285	171.6
Hertford	109	381.7	67	233.7
Hoke	119	347.1	51	175.2
Hyde	35	534.9	11	166.7
Iredell	817	493.7	304	188.7
Jackson	201	477.0	66	153.3
Johnston	658	445.6	244	178.7
Jones	60	439.6	29	204.9
Lee	350	517.8	102	147.1
Lenoir	427	588.8	152	207.2
Lincoln	392	476.6	157	200.0
McDowell	251	461.9	104	188.6
Macon	216	395.0	99	167.5
Madison	133	507.1	67	236.4
Martin	161	521.1	69	216.9
Mecklenburg	3,548	474.7	1,146	167.7
Mitchell	87	401.0	49	198.8
Montgomery	141	438.3	40	124.7
Moore	622	500.1	234	167.2
Nash	514	454.9	185	164.6
New Hanover	967	459.6	382	182.1
Northampton	146	490.8	53	170.5
Onslow	563	529.5	216	215.2
Orange	585	502.2	177	159.6
Pamlico	88	418.1	36	171.5

Rates are per 100,000 persons and are age-adjusted to the 2000 U.S. Census.

Cancers of the urinary bladder and female breast include *in situ* cases.

Brain and other central nervous system cancer excludes benign cases.

Rates based on counts less than 16 are unstable and should be used with caution.

Rates are calculated using the bridged-race population estimates obtained from the National Center for Health Statistics available online at www.cdc.gov/nchs/nvss/bridged_race/data_documentation.htm#vintage2009.

Table 3 (continued): 2008 Cancer Incidence and Mortality by County

	Incidence		Mortality	
	Cases	**Rate**	**Deaths**	**Rate**
Pasquotank	222	497.7	80	173.2
Pender	269	430.5	120	196.0
Perquimans	83	423.4	45	231.1
Person	211	472.4	78	178.7
Pitt	691	502.0	249	185.2
Polk	156	482.0	72	193.0
Randolph	822	518.5	297	188.0
Richmond	250	479.8	114	213.4
Robeson	578	465.2	249	208.5
Rockingham	618	539.8	231	197.4
Rowan	802	496.2	306	184.3
Rutherford	448	532.9	192	231.1
Sampson	282	408.5	130	190.6
Scotland	217	540.1	94	243.0
Stanly	356	498.8	129	178.8
Stokes	231	405.0	90	154.1
Surry	483	535.6	186	197.2
Swain	89	511.2	33	183.0
Transylvania	261	545.2	83	147.9
Tyrrell	17	350.6	18	356.6
Union	646	388.1	251	172.0
Vance	246	510.9	93	191.4
Wake	3,514	494.2	1,015	159.9
Warren	120	437.1	41	145.6
Washington	82	474.4	18	102.4
Watauga	212	488.9	74	165.6
Wayne	629	521.7	218	184.7
Wilkes	425	499.3	154	180.4
Wilson	439	495.5	194	224.8
Yadkin	228	492.3	88	189.2
Yancey	152	593.5	54	196.7

Rates are per 100,000 persons and are age-adjusted to the 2000 U.S. Census.

Cancers of the urinary bladder and female breast include *in situ* cases.

Brain and other central nervous system cancer excludes benign cases.

Rates based on counts less than 16 are unstable and should be used with caution.

Rates are calculated using the bridged-race population estimates obtained from the National Center for Health Statistics available online at www.cdc.gov/nchs/nvss/bridged_race/data_documentation.htm#vintage2009.

Table 4: 2008 Ten Highest and Lowest Cancer Incidence and Mortality Rates by County

Incidence - Lowest Ten

	Cases	Rate
Hoke	119	347.1
Tyrrell	17	350.6
Chatham	290	381.1
Hertford	109	381.7
Brunswick	603	386.1
Union	646	388.1
Columbus	264	395.0
Macon	216	395.0
Mitchell	87	401.0
Stokes	231	405.0

Mortality - Lowest Ten

	Deaths	Rate
Washington	18	102.4
Montgomery	40	124.7
Clay	24	138.1
Ashe	56	145.4
Warren	41	145.6
Lee	102	147.1
Transylvania	83	147.9
Chatham	116	151.2
Jackson	66	153.3
Greene	31	153.4

Incidence - Highest Ten

	Cases	Rate
Scotland	217	540.1
Guilford	2,651	543.4
Carteret	487	545.2
Transylvania	261	545.2
Chowan	113	552.9
Granville	333	560.4
Beaufort	361	566.4
Cabarrus	930	586.4
Lenoir	427	588.8
Yancey	152	593.5

Mortality - Highest Ten

	Deaths	Rate
Rutherford	192	231.1
Hertford	67	233.7
Madison	67	236.4
Bladen	90	241.1
Scotland	94	243.0
Chowan	52	244.5
Bertie	63	246.2
Granville	142	252.9
Edgecombe	138	266.7
Tyrrell	18	356.6

Rates are per 100,000 persons and are age-adjusted to the 2000 U.S. Census.

Cancers of the urinary bladder and female breast include *in situ* cases.

Brain and other central nervous system cancer excludes benign cases.

Rates are calculated using the bridged-race population estimates obtained from the National Center for Health Statistics available online at www.cdc.gov/nchs/nvss/bridged_race/data_documentation.htm#vintage2009.

Table 5: 2008 Cancer Incidence and Mortality by Age Group

	Incidence				Mortality			
	0-19		20-44		0-19		20-44	
	Cases	Rate	Cases	Rate	Deaths	Rate	Deaths	Rate
All Cancers	392	15.5	3,819	119.1	59	2.3	549	17.1
Oral Cavity	10	0.4	87	2.7	0	0.0	12	0.4
Esophagus	*	*	12	0.4	0	0.0	6	0.2
Stomach	*	*	36	1.1	0	0.0	15	0.5
Colon and Rectum	*	*	221	6.9	0	0.0	51	1.6
Liver	9	0.4	13	0.4	2	0.1	14	0.4
Gallbladder	*	*	*	*	0	0.0	1	0.0
Pancreas	*	*	24	0.7	0	0.0	20	0.6
Larynx	*	*	16	0.5	0	0.0	2	0.1
Lung and Bronchus	*	*	130	4.1	0	0.0	58	1.8
Bone	23	0.9	21	0.7	10	0.4	12	0.4
Soft Tissue	24	1.0	78	2.4	4	0.2	8	0.2
Melanoma (Skin)	12	0.5	408	12.7	0	0.0	24	0.7
Female Breast	*	*	950	59.7	0	0.0	91	5.7
Cervix Uteri	*	*	130	8.2	0	0.0	19	1.2
Corpus Uteri	*	*	102	6.4	0	0.0	0	0.0
Ovary	8	0.7	73	4.6	0	0.0	17	1.1
Prostate	*	*	46	2.8	0	0.0	1	0.1
Testes	8	0.6	150	9.3	0	0.0	7	0.4
Urinary Bladder	*	*	38	1.2	0	0.0	2	0.1
Kidney	15	0.6	136	4.2	2	0.1	14	0.4
Endocrine	31	1.2	393	12.3	4	0.2	9	0.3
Multiple Myeloma	*	*	19	0.6	0	0.0	2	0.1
Leukemia	95	3.8	118	3.7	20	0.8	38	1.2
Brain and Other CNS	66	2.6	101	3.1	10	0.4	47	1.5
Hodgkin Disease	23	0.9	106	3.3	0	0.0	6	0.2
Non-Hodgkin Lymphoma	29	1.1	203	6.3	3	0.1	21	0.7
Other Cancers	31	1.2	204	6.4	4	0.2	52	1.6

Rates are per 100,000 persons.

Cancers of the urinary bladder and female breast include *in situ* cases.

Brain and other central nervous system cancer excludes benign cases.

* Incidence counts less than five are suppressed.

Rates based on counts less than 16 are unstable and should be used with caution.

Rates are calculated using the bridged-race population estimates obtained from the National Center for Health Statistics available online at www.cdc.gov/nchs/nvss/bridged_race/data_documentation.htm#vintage2009.

Table 5 (continued): 2008 Cancer Incidence and Mortality by Age Group

	Incidence				Mortality			
	45-64		65 and above		45-64		65 and above	
	Cases	Rate	Cases	Rate	Deaths	Rate	Deaths	Rate
All Cancers	19,010	805.6	24,367	2,104.2	5,078	215.2	11,717	1,011.8
Oral Cavity	659	27.9	475	41.0	106	4.5	130	11.2
Esophagus	212	9.0	275	23.7	140	5.9	211	18.2
Stomach	189	8.0	319	27.5	78	3.3	217	18.7
Colon and Rectum	1,560	66.1	2,371	204.7	455	19.3	977	84.4
Liver	324	13.7	245	21.2	232	9.8	274	23.7
Gallbladder	28	1.2	61	5.3	17	0.7	45	3.9
Pancreas	366	15.5	681	58.8	262	11.1	716	61.8
Larynx	230	9.7	204	17.6	54	2.3	82	7.1
Lung and Bronchus	2,492	105.6	4,541	392.1	1,626	68.9	3,668	316.7
Bone	18	0.8	18	1.6	5	0.2	16	1.4
Soft Tissue	107	4.5	102	8.8	34	1.4	63	5.4
Melanoma (Skin)	828	35.1	842	72.7	91	3.9	176	15.2
Female Breast	3,788	309.4	3,304	488.9	461	37.7	698	103.3
Cervix Uteri	147	12.0	64	9.5	58	4.7	34	5.0
Uterus (Corpus, NOS)	598	48.8	524	77.5	65	5.3	142	21.0
Ovary	224	18.3	323	47.8	115	9.4	279	41.3
Prostate	3,147	277.2	3,703	767.9	105	9.2	789	163.6
Testes	50	4.4	7	1.5	2	0.2	2	0.4
Urinary Bladder	521	22.1	1,411	121.8	68	2.9	303	26.2
Kidney	693	29.4	749	64.7	124	5.3	259	22.4
Endocrine	486	20.6	277	23.9	16	0.7	43	3.7
Multiple Myeloma	232	9.8	398	34.4	102	4.3	270	23.3
Leukemia	278	11.8	556	48.0	117	5.0	439	37.9
Brain and Other CNS	204	8.6	198	17.1	147	6.2	199	17.2
Hodgkin Disease	70	3.0	46	4.0	12	0.5	16	1.4
Non-Hodgkin Lymphoma	608	25.8	961	83.0	113	4.8	412	35.6
Other Cancers	951	40.3	1,712	147.8	473	20.0	1,257	108.5

Rates are per 100,000 persons.

Cancers of the urinary bladder and female breast include *in situ* cases.

Brain and other central nervous system excludes benign cases.

* Incidence counts less than five are suppressed.

Rates based on counts less than 16 are unstable and should be used with caution.

Rates are calculated using the bridged-race population estimates obtained from the National Center for Health Statistics available online at www.cdc.gov/nchs/nvss/bridged_race/data_documentation.htm#vintage2009.

Table 6: 2008 Top Ten Cancer Incidence and Mortality by Age Group

Ages 0 to 19

Incidence			Mortality		
	Cases	**Rate**		**Deaths**	**Rate**
Leukemia	95	3.8	Leukemia	20	0.8
Brain and Other CNS	66	2.6	Bone	10	0.4
Endocrine	31	1.2	Brain and Other CNS	10	0.4
Non-Hodgkin Lymphoma	29	1.1	Soft Tissue	4	0.2
Soft Tissue	24	1.0	Endocrine	4	0.2
Bone	23	0.9	Non-Hodgkin Lymphoma	3	0.1
Hodgkin Disease	23	0.9	Liver	2	0.1
Kidney	15	0.6	Kidney	2	0.1
Melanoma (Skin)	12	0.5			
Oral Cavity	10	0.4			

Ages 20 to 44

Incidence			Mortality		
	Cases	**Rate**		**Deaths**	**Rate**
Female Breast	950	59.7	Female Breast	91	5.7
Melanoma (Skin)	408	12.7	Lung and Bronchus	58	1.8
Endocrine	393	12.3	Colon and Rectum	51	1.6
Colon and Rectum	221	6.9	Brain and Other CNS	47	1.5
Non-Hodgkin Lymphoma	203	6.3	Leukemia	38	1.2
Testes	150	9.3	Melanoma (Skin)	24	0.7
Kidney	136	4.2	Non-Hodgkin Lymphoma	21	0.7
Lung and Bronchus	130	4.1	Pancreas	20	0.6
Cervix Uteri	130	8.2	Cervix Uteri	19	1.2
Leukemia	118	3.7	Ovary	17	1.1

Rates are per 100,000 persons.

Cancers of the urinary bladder and female breast include *in situ* cases.

Brain and other central nervous system cancer excludes benign cases.

Rates based on counts less than 16 are unstable and should be used with caution.

Rates are calculated using the bridged-race population estimates obtained from the National Center for Health Statistics available online at www.cdc.gov/nchs/nvss/bridged_race/data_documentation.htm#vintage2009.

Table 6 (continued): 2008 Top Ten Cancer Incidence and Mortality by Age Group

Ages 45 to 64

Incidence			Mortality		
	Cases	**Rate**		**Deaths**	**Rate**
Female Breast	3,788	309.4	Lung and Bronchus	1,626	68.9
Prostate	3,147	277.2	Female Breast	461	37.7
Lung and Bronchus	2,492	105.6	Colon and Rectum	455	19.3
Colon and Rectum	1,560	66.1	Pancreas	262	11.1
Melanoma (Skin)	828	35.1	Liver	232	9.8
Kidney	693	29.4	Brain and Other CNS	147	6.2
Oral Cavity	659	27.9	Esophagus	140	5.9
Non-Hodgkin Lymphoma	608	25.8	Kidney	124	5.3
Uterus (Corpus, NOS)	598	48.8	Leukemia	117	5.0
Urinary Bladder	521	22.1	Ovary	115	9.4

Ages 65 and above

Incidence			Mortality		
	Cases	**Rate**		**Deaths**	**Rate**
Lung and Bronchus	4,541	392.1	Lung and Bronchus	3,668	316.7
Prostate	3,703	767.9	Colon and Rectum	977	84.4
Female Breast	3,304	488.9	Prostate	789	163.6
Colon and Rectum	2,371	204.7	Pancreas	716	61.8
Bladder	1,411	121.8	Female Breast	698	103.3
Non-Hodgkin Lymphoma	961	83.0	Leukemia	439	37.9
Melanoma (Skin)	842	72.7	Non-Hodgkin Lymphoma	412	35.6
Kidney	749	64.7	Bladder	303	26.2
Pancreas	681	58.8	Ovary	279	41.3
Leukemia	556	48.0	Liver	274	23.7

Rates are per 100,000 persons.

Cancers of the urinary bladder and female breast include *in situ* cases.

Brain and other central nervous system cancer excludes benign cases.

Rates based on counts less than 16 are unstable and should be used with caution.

Rates are calculated using the bridged-race population estimates obtained from the National Center for Health Statistics available online at www.cdc.gov/nchs/nvss/bridged_race/data_documentation.htm#vintage2009.

Table 7: 2008 Cancer Incidence and Mortality by Gender

	Incidence				Mortality			
	Males		Females		Males		Females	
	Cases	Rate	Cases	Rate	Deaths	Rate	Deaths	Rate
All Cancers	24,388	564.2	23,194	436.8	9,217	230.0	8,186	149.2
Oral Cavity and Pharynx	847	18.4	384	7.2	172	3.9	76	1.4
Lip	35	0.8	19	0.4	2	0.1	2	0.0
Tongue	225	4.8	95	1.8	31	0.7	23	0.4
Salivary Glands	70	1.7	56	1.1	13	0.3	3	0.1
Floor of Mouth	49	1.0	34	0.6	1	0.0	1	0.0
Nasopharynx	40	0.9	13	0.2	15	0.4	4	0.1
Oropharynx	52	1.1	15	0.3	17	0.4	8	0.1
Hypopharynx	58	1.3	15	0.3	14	0.3	1	0.0
Other Mouth and Pharynx	318	6.8	137	2.6	79	1.8	34	0.6
Digestive System	4,137	96.3	3,454	63.4	2,085	50.2	1,789	32.2
Esophagus	402	9.3	97	1.8	288	6.8	69	1.3
Stomach	330	7.8	213	3.9	172	4.3	138	2.5
Small Intestine	121	2.7	99	1.9	24	0.6	16	0.3
Colon and Rectum	2,181	51.3	1,972	36.3	735	18.1	745	13.4
Anus and Anal Canal	54	1.2	108	2.0	14	0.4	9	0.2
Liver and Intrahepatic Bile Duct	412	9.0	179	3.3	349	7.9	173	3.2
Gallbladder	30	0.7	63	1.1	22	0.6	41	0.7
Pancreas	501	11.7	570	10.2	446	10.8	552	9.8
Other Digestive Organs	106	2.6	153	2.8	35	0.8	46	0.8
Respiratory System	4,550	107.3	3,229	59.5	3,249	79.3	2,268	41.6
Larynx	355	8.0	95	1.7	110	2.7	28	0.5
Lung and Bronchus	4,068	96.3	3,095	57.0	3,125	76.3	2,227	40.9
Other Respiratory Organs	127	3.0	39	0.7	14	0.4	13	0.2
Bones and Joints	40	0.9	40	0.9	23	0.5	20	0.4
Soft Tissue including Heart	187	4.3	124	2.5	60	1.5	49	0.9
Malignant Melanoma of the Skin	1,222	28.8	868	17.1	191	4.8	100	1.9
Breast	86	2.0	8,043	152.4	7	0.2	1,250	23.0
Invasive Breast	68	1.6	6,475	122.7				
In Situ Breast	18	0.4	1,568	29.7				
Female Genital System	.	.	2,422	45.8	.	.	784	14.2
Cervix Uteri, Invasive	.	.	343	7.0	.	.	111	2.1
Uterus (Corpus, NOS)	.	.	1,224	22.6	.	.	207	3.7
Ovary	.	.	628	11.9	.	.	411	7.5
Other Female Genital Organs	.	.	227	4.3	.	.	55	1.0

Rates are per 100,000 persons and are age-adjusted to the 2000 U.S. Census.

Cancers of the urinary bladder and female breast include *in situ* cases.

Brain and other central nervous system cancers exclude benign cases.

Rates based on counts less than 16 are unstable and should be used with caution.

Rates are calculated using the bridged-race population estimates obtained from the National Center for Health Statistics available online at www.cdc.gov/nchs/nvss/bridged_race/data_documentation.htm#vintage2009.

Table 7 (continued): 2008 Cancer Incidence and Mortality by Gender

	Incidence				Mortality			
	Males		Females		Males		Females	
	Cases	Rate	Cases	Rate	Deaths	Rate	Deaths	Rate
Male Genital System	7,155	158.5	.	.	915	25.9	.	.
Prostate	6,896	152.6	.	.	895	25.5	.	.
Testis	215	4.8	.	.	11	0.3	.	.
Penis	38	0.9	.	.	8	0.2	.	.
Other Male Genital Organs	6	0.2	.	.	1	0.0	.	.
Urinary System	2,562	62.1	1,074	19.8	536	14.1	264	4.7
Urinary Bladder	1,477	37.2	494	9.0	249	6.9	124	2.2
Kidney and Renal Pelvis	1,037	23.6	556	10.4	272	6.8	127	2.3
Ureter	37	0.9	16	0.3	9	0.2	2	0.0
Other Urinary Organs	11	0.3	8	0.2	6	0.1	11	0.2
Eye and Orbit	53	1.2	34	0.6	5	0.1	1	0.0
Brain and Other CNS	318	7.1	251	5.0	244	5.7	159	3.0
Endocrine System	326	7.3	861	17.6	38	0.9	34	0.6
Thyriod Gland	291	6.5	839	17.2	19	0.5	28	0.5
Other Endocrine and Thymus	35	0.8	22	0.4	19	0.4	6	0.1
Lymphomas	1,126	26.5	920	17.5	287	7.2	296	5.4
Hodgkin Disease	137	3.1	108	2.2	16	0.4	18	0.3
Non-Hodgkin Lymphoma	989	23.4	812	15.3	271	6.8	278	5.1
Multiple Myeloma	352	8.4	297	5.4	201	5.0	173	3.1
Leukemia	604	14.7	443	8.4	364	9.4	250	4.6
Acute Lymphocytic Leukemia	71	1.5	50	1.1	23	0.5	10	0.2
Chronic Lymphocytic Leukemia	215	5.3	132	2.4	79	2.2	51	0.9
Acute Myeloid Leukemia	175	4.3	149	2.8	139	3.5	109	2.0
Chronic Myeloid Leukemia	79	1.9	55	1.1	18	0.5	11	0.2
Other Leukemia	64	1.6	57	1.1	105	2.7	69	1.3
Other Cancers - Uncategorized	823	20.6	750	13.7	840	21.3	673	12.1

Rates are per 100,000 persons and are age-adjusted to the 2000 U.S. Census.

Cancers of the urinary bladder and female breast include *in situ* cases.

Brain and other central nervous system cancers exclude benign cases.

Rates based on counts less than 16 are unstable and should be used with caution.

Rates are calculated using the bridged-race population estimates obtained from the National Center for Health Statistics available online at www.cdc.gov/nchs/nvss/bridged_race/data_documentation.htm#vintage2009.

Table 8: 2008 Top Ten Cancer Incidence and Mortality Sites by Gender

Males

Incidence			Mortality		
	Cases	**Rate**		**Deaths**	**Rate**
Prostate	6,896	152.6	Lung and Bronchus	3,125	76.3
Lung and Bronchus	4,068	96.3	Prostate	895	25.5
Colon and Rectum	2,181	51.3	Colon and Rectum	735	18.1
Urinary Bladder	1,477	37.2	Pancreas	446	10.8
Melanoma (Skin)	1,222	28.8	Leukemia	364	9.4
Kidney	1,037	23.6	Liver	349	7.9
Non-Hodgkin Lymphoma	989	23.4	Esophagus	288	6.8
Oral Cavity	847	18.4	Kidney	272	6.8
Leukemia	604	14.7	Non-Hodgkin Lymphoma	271	6.8
Pancreas	501	11.7	Urinary Bladder	249	6.9

Females

Incidence			Mortality		
	Cases	**Rate**		**Deaths**	**Rate**
Female Breast	8,043	152.4	Lung and Bronchus	2,227	40.9
Lung and Bronchus	3,095	57.0	Female Breast	1,250	23.0
Colon and Rectum	1,972	36.3	Colon and Rectum	746	13.4
Uterus (Corpus, NOS)	1,224	22.6	Pancreas	552	9.8
Melanoma (Skin)	868	17.1	Ovary	411	7.5
Endocrine	861	17.6	Non-Hodgkin Lymphoma	278	5.1
Non-Hodgkin Lymphoma	812	15.3	Leukemia	250	4.6
Ovary	628	11.9	Uterus (Corpus, NOS)	207	3.7
Pancreas	570	10.2	Liver	173	3.2
Kidney	556	10.4	Multiple Myeloma	173	3.1

Rates are per 100,000 persons and are age-adjusted to the 2000 U.S. Census.

Cancers of the urinary bladder and female breast include *in situ* cases.

Brain and other central nervous system cancers exclude benign cases.

Rates are calculated using the bridged-race population estimates obtained from the National Center for Health Statistics available online at www.cdc.gov/nchs/nvss/bridged_race/data_documentation.htm#vintage2009.

Table 9: 2008 Cancer Incidence and Mortality by Race

	Incidence				Mortality			
	Whites		Minorities		Whites		Minorities	
	Cases	Rate	Cases	Rate	Deaths	Rate	Deaths	Rate
All Cancers	37,631	484.7	9,590	480.9	13,702	176.7	3,698	199.8
Oral Cavity and Pharynx	980	12.5	246	11.5	170	2.2	78	3.8
Lip	50	0.7	*	*	3	0.0	1	0.1
Tongue	273	3.4	47	2.2	38	0.5	16	0.8
Salivary Glands	106	1.4	20	0.9	15	0.2	1	0.1
Floor of Mouth	67	0.8	15	0.7	2	0.0	0	0.0
Nasopharynx	32	0.4	21	1.0	15	0.2	4	0.2
Oropharynx	40	0.5	27	1.3	14	0.2	11	0.5
Hypopharynx	47	0.6	26	1.2	8	0.1	7	0.3
Other Mouth and Pharynx	365	4.7	88	4.2	75	0.9	38	1.9
Digestive System	5,699	73.0	1,848	95.1	2,873	36.9	1,000	53.1
Esophagus	400	5.0	99	5.2	276	3.5	81	4.1
Stomach	371	4.8	169	8.8	189	2.5	121	6.7
Small Intestine	149	1.9	70	3.4	32	0.4	8	0.4
Colon and Rectum	3,148	40.5	977	50.6	1,082	13.9	398	21.5
Anus and Anal Canal	128	1.6	33	1.6	18	0.2	5	0.2
Liver and Intrahepatic Bile Duct	427	5.4	160	7.3	385	5.0	137	6.6
Gallbladder	66	0.8	26	1.4	46	0.6	17	1.0
Pancreas	800	10.2	266	14.2	780	10.0	217	11.8
Other Digestive Organs	210	2.7	48	2.4	65	0.8	16	0.9
Respiratory System	6,359	80.9	1,390	71.4	4,542	58.2	975	52.2
Larynx	326	4.0	124	6.2	96	1.2	42	2.3
Lung and Bronchus	5,894	75.1	1,240	64.0	4,427	56.8	925	49.6
Other Respiratory Organs	139	1.8	26	1.2	19	0.3	8	0.4
Bones and Joints	61	0.9	19	0.9	42	0.6	1	0.0
Soft Tissue including Heart	248	3.4	63	3.0	85	1.1	24	1.3
Malignant Melanoma of the Skin	2,051	27.3	22	1.2	282	3.7	9	0.5
Breast	6,323	82.0	1,719	83.6	943	12.1	314	16.3
Invasive Breast	5,093	66.1	1,382	67.2				
In Situ Breast	1,230	15.9	337	16.5				
Female Genital System	1,896	46.0	516	45.1	593	13.5	191	17.2
Cervix Uteri, Invasive	221	6.1	119	9.9	72	1.8	39	3.3
Uterus (Corpus, NOS)	964	22.8	254	22.5	133	2.9	74	6.7
Ovary	525	12.7	102	9.0	346	7.8	65	5.9
Other Female Genital Organs	186	4.5	41	3.7	42	1.0	13	1.2

Rates are per 100,000 persons and are age-adjusted to the 2000 U.S. Census.

Cancers of the urinary bladder and female breast include *in situ* cases.

Brain and other central nervous system cancers exclude benign cases.

* Incidence counts less than five are suppressed.

Rates based on counts less than 16 are unstable and should be used with caution.

Rates are calculated using the bridged-race population estimates obtained from the National Center for Health Statistics available online at www.cdc.gov/nchs/nvss/bridged_race/data_documentation.htm#vintage2009.

Table 9 (continued): 2008 Cancer Incidence and Mortality by Race

	Incidence				Mortality			
	Whites		Minorities		Whites		Minorities	
	Cases	Rate	Cases	Rate	Deaths	Rate	Deaths	Rate
Male Genital System	5,227	142.4	1,822	218.4	607	20.6	308	55.3
Prostate	5,000	135.6	1,790	215.1	594	20.2	301	54.2
Testis	195	5.7	20	1.9	9	0.3	2	0.2
Penis	28	0.9	10	1.2	3	0.1	5	0.8
Other Male Genital Organs	*	*	*	*	1	0.0	0	0.0
Urinary System	3,053	39.4	563	28.8	677	8.8	122	6.6
Urinary Bladder	1,755	22.7	204	11.4	326	4.3	47	2.6
Kidney and Renal Pelvis	1,241	16.0	344	16.5	329	4.2	70	3.7
Ureter	44	0.6	9	0.6	7	0.1	4	0.2
Other Urinary Organs	13	0.2	6	0.3	15	0.2	1	0.1
Eye and Orbit	79	1.0	8	0.3	6	0.1	0	0.0
Brain and Other CNS	477	6.4	92	4.1	354	4.7	49	2.3
Endocrine System	956	13.2	224	10.5	56	0.8	16	0.8
Thyriod Gland	913	12.6	210	9.8	39	0.5	8	0.5
Other Endocrine and Thymus	43	0.6	14	0.7	17	0.2	8	0.3
Lymphomas	1,679	22.2	357	17.4	507	6.6	76	4.0
Hodgkin Disease	187	2.7	57	2.5	26	0.3	8	0.4
Non-Hodgkin Lymphoma	1,492	19.5	300	14.9	481	6.3	68	3.7
Multiple Myeloma	417	5.4	230	12.3	255	3.3	119	6.5
Leukemia	873	11.6	167	8.0	514	6.8	99	5.4
Acute Lymphocytic Leukemia	95	1.4	26	1.0	28	0.4	5	0.2
Chronic Lymphocytic Leukemia	293	3.8	48	2.5	108	1.4	22	1.4
Acute Myeloid Leukemia	270	3.6	54	2.7	212	2.8	35	1.8
Chronic Myeloid Leukemia	111	1.5	23	1.1	18	0.2	11	0.5
Other Leukemia	104	1.4	16	0.8	148	1.9	26	1.4
Other Cancers - Uncategorized	1,253	16.3	304	16.2	1,196	15.4	317	17.5

Rates are per 100,000 persons and are age-adjusted to the 2000 U.S. Census.

Cancers of the urinary bladder and female breast include *in situ* cases.

Brain and other central nervous system cancers exclude benign cases.

* Incidence counts less than five are suppressed.

Rates based on counts less than 16 are unstable and should be used with caution.

Rates are calculated using the bridged-race population estimates obtained from the National Center for Health Statistics available online at www.cdc.gov/nchs/nvss/bridged_race/data_documentation.htm#vintage2009.

Table 10: 2008 Top Ten Cancer Incidence and Mortality Sites by Race

Whites

Incidence			Mortality		
	Cases	**Rate**		**Deaths**	**Rate**
Female Breast	6,264	152.2	Lung and Bronchus	4,427	56.8
Lung and Bronchus	5,894	75.1	Colon and Rectum	1,085	13.9
Prostate	5,000	135.6	Female Breast	938	12.1
Colon and Rectum	3,148	40.5	Pancreas	780	10.0
Melanoma (Skin)	2,051	27.3	Prostate	594	7.8
Urinary Bladder	1,755	22.7	Leukemia	514	6.8
Non-Hodgkin Lymphoma	1,492	19.5	Non-Hodgkin Lymphoma	481	6.3
Kidney	1,241	16.0	Liver	385	5.0
Oral Cavity	980	12.5	Brain and Other CNS	354	4.7
Uterus (Corpus, NOS)	964	22.8	Ovary	346	4.4

Minorities

Incidence			Mortality		
	Cases	**Rate**		**Deaths**	**Rate**
Prostate	1,790	215.1	Lung and Bronchus	925	49.6
Female Breast	1,692	144.0	Colon and Rectum	398	21.5
Lung and Bronchus	1,240	64.0	Prostate	301	18.6
Colon and Rectum	977	50.6	Female Breast	312	16.2
Kidney	344	16.5	Pancreas	218	11.9
Non-Hodgkin Lymphoma	300	14.9	Stomach	121	6.7
Pancreas	266	14.2	Liver	137	6.6
Uterus (Corpus, NOS)	254	22.5	Multiple Myeloma	119	6.5
Oral Cavity	246	11.5	Leukemia	100	5.4
Multiple Myeloma	230	12.3	Esophagus	81	4.1

Rates are per 100,000 persons and are age-adjusted to the 2000 U.S. Census.

Cancers of the urinary bladder and female breast include *in situ* cases.

Brain and other central nervous system cancers exclude benign cases.

Rates are calculated using the bridged-race population estimates obtained from the National Center for Health Statistics available online at www.cdc.gov/nchs/nvss/bridged_race/data_documentation.htm#vintage2009.

Table 11: 2008 Top Ten Cancer Incidence and Mortality by Race and Gender

White Males

Incidence			Mortality		
	Cases	**Rate**		**Deaths**	**Rate**
Prostate	5,000	135.6	Lung and Bronchus	2,512	74.7
Lung and Bronchus	3,285	95.2	Prostate	594	20.2
Colon and Rectum	1,685	48.8	Colon and Rectum	539	16.3
Bladder	1,336	40.6	Pancreas	357	10.5
Melanoma (Skin)	1,202	34.8	Leukemia	306	9.5
Non-Hodgkin Lymphoma	837	24.5	Liver	258	7.4
Kidney	821	23.2	Non-Hodgkin Lymphoma	245	7.5
Oral Cavity	655	17.8	Urinary Bladder	228	7.6
Leukemia	513	15.5	Esophagus	226	6.6
Pancreas	392	11.2	Kidney	222	6.8

White Females

Incidence			Mortality		
	Cases	**Rate**		**Deaths**	**Rate**
Female Breast	6,264	152.2	Lung and Bronchus	1,915	43.9
Lung and Bronchus	2,609	60.3	Female Breast	938	21.7
Colon and Rectum	1,463	33.9	Colon and Rectum	546	12.2
Uterus (Corpus, NOS)	964	22.8	Pancreas	423	9.3
Melanoma (Skin)	849	22.1	Ovary	346	7.8
Endocrine	678	18.5	Non-Hodgkin Lymphoma	236	5.3
Non-Hodgkin Lymphoma	655	15.4	Leukemia	208	4.8
Ovary	525	12.7	Brain and Other CNS	140	3.4
Kidney	420	10.0	Uterus (Corpus, NOS)	133	2.9
Urinary Bladder	419	9.5	Liver	127	2.9

Rates are per 100,000 persons and are age-adjusted to the 2000 U.S. Census.

Cancers of the urinary bladder and female breast include *in situ* cases.

Brain and other central nervous system cancer excludes benign cases.

Rates are calculated using the bridged-race population estimates obtained from the National Center for Health Statistics available online at www.cdc.gov/nchs/nvss/bridged_race/data_documentation.htm#vintage2009.

Table 11 (continued): 2008 Top Ten Cancer Incidence and Mortality by Race and Gender

Minority Males

Incidence			Mortality		
	Cases	**Rate**		**Deaths**	**Rate**
Prostate	1,790	215.1	Lung and Bronchus	613	82.1
Lung and Bronchus	762	95.7	Prostate	301	54.2
Colon and Rectum	478	59.0	Colon and Rectum	198	26.3
Kidney	209	23.2	Liver	91	9.9
Oral Cavity	190	20.6	Pancreas	89	11.6
Non-Hodgkin Lymphoma	150	17.4	Esophagus	62	7.3
Urinary Bladder	129	18.5	Stomach	62	8.0
Liver	111	11.2	Multiple Myeloma	62	8.7
Multiple Myeloma	110	15.0	Oral Cavity	58	6.5
Pancreas	107	13.8	Leukemia	58	8.2

Minority Females

Incidence			Mortality		
	Cases	**Rate**		**Deaths**	**Rate**
Female Breast	1,692	144.0	Lung and Bronchus	312	28.6
Colon and Rectum	498	44.2	Female Breast	312	27.2
Lung and Bronchus	477	42.6	Colon and Rectum	200	18.0
Uterus (Corpus, NOS)	254	22.5	Pancreas	129	11.8
Endocrine	177	14.8	Uterus (Corpus, NOS)	74	6.7
Pancreas	158	14.2	Ovary	65	5.9
Non-Hodgkin Lymphoma	150	13.1	Stomach	59	5.6
Kidney	135	11.4	Multiple Myeloma	57	5.3
Multiple Myeloma	120	10.7	Liver	46	4.1
Cervix Uteri	119	9.9	Leukemia	42	3.8

Rates are per 100,000 persons and are age-adjusted to the 2000 U.S. Census.

Cancers of the urinary bladder and female breast include *in situ* cases.

Brain and other central nervous system cancer excludes benign cases.

Rates are calculated using the bridged-race population estimates obtained from the National Center for Health Statistics available online at www.cdc.gov/nchs/nvss/bridged_race/data_documentation.htm#vintage2009.

Table 12: 2004 – 2008 Top Five Cancer Incidence and Mortality Sites by Age Group, Race and Gender

White Males

Incidence			Mortality		
Ages 0 to 19					
	Cases	**Rate**		**Deaths**	**Rate**
Leukemia	198	4.5	Leukemia	27	0.6
Brain and Other CNS	155	3.5	Brain and Other CNS	23	0.5
Non-Hodgkin Lymphoma	66	1.5	Bone	15	0.3
Bone	51	1.2	Soft Tissue	8	0.2
Testes	49	1.1	Endocrine	6	0.1
Ages 20 to 44					
	Cases	**Rate**		**Deaths**	**Rate**
Testes	712	12.1	Lung and Bronchus	153	2.6
Melanoma (Skin)	692	11.7	Brain and Other CNS	109	1.8
Colon and Rectum	438	7.4	Colon and Rectum	98	1.7
Non-Hodgkin Lymphoma	363	6.2	Leukemia	84	1.4
Kidney	293	5.0	Melanoma (Skin)	65	1.1
Ages 45 to 64					
	Cases	**Rate**		**Deaths**	**Rate**
Prostate	9,810	232.5	Lung and Bronchus	3,630	86.0
Lung and Bronchus	5,200	123.2	Colon and Rectum	869	20.6
Colon and Rectum	3,366	79.8	Pancreas	553	13.1
Melanoma (Skin)	1,938	45.9	Liver	473	11.2
Urinary Bladder	1,702	40.3	Esophagus	454	10.8
Ages 65 and above					
	Cases	**Rate**		**Deaths**	**Rate**
Prostate	14,013	741.1	Lung and Bronchus	8,720	461.1
Lung and Bronchus	10,701	565.9	Prostate	2,588	136.9
Colon and Rectum	4,936	261.0	Colon and Rectum	1,933	102.2
Urinary Bladder	4,444	235.0	Pancreas	1,271	67.2
Melanoma (Skin)	2,397	126.8	Leukemia	1,099	58.1

Rates are per 100,000 persons.

Cancers of the urinary bladder and female breast include *in situ* cases.

Brain and other central nervous system cancer excludes benign cases.

Rates based on counts less than 16 are unstable and should be used with caution.

Rates are calculated using the bridged-race population estimates obtained from the National Center for Health Statistics available online at www.cdc.gov/nchs/nvss/bridged_race/data_documentation.htm#vintage2009.

Table 12 (continued): 2004 – 2008 Top Five Cancer Incidence and Mortality Sites by Age Group, Race and Gender

White Females

Incidence			Mortality		
Ages 0 to 19					
	Cases	**Rate**		**Deaths**	**Rate**
Leukemia	164	4.0	Brain and Other CNS	26	0.6
Brain and Other CNS	142	3.4	Leukemia	21	0.5
Endocrine	85	2.1	Bone	13	0.3
Hodgkin Disease	47	1.1	Endocrine	5	0.1
Soft Tissue	42	1.0	Soft Tissue	4	0.1
Ages 20 to 44					
	Cases	**Rate**		**Deaths**	**Rate**
Female Breast	3,304	59.0	Female Breast	262	4.7
Endocrine	1,166	20.8	Lung and Bronchus	140	2.5
Melanoma (Skin)	1,096	19.6	Colon and Rectum	92	1.6
Cervix Uteri	544	9.7	Cervix Uteri	66	1.2
Colon and Rectum	393	7.0	Melanoma (Skin)	55	1.0
Ages 45 to 64					
	Cases	**Rate**		**Deaths**	**Rate**
Female Breast	13,812	313.6	Lung and Bronchus	2,499	56.7
Lung and Bronchus	3,978	90.3	Female Breast	1,617	36.7
Colon and Rectum	2,351	53.4	Colon and Rectum	581	13.2
Uterus (Corpus, NOS)	2,211	50.2	Ovary	478	10.9
Melanoma (Skin)	1,445	32.8	Pancreas	392	8.9
Ages 65 and above					
	Cases	**Rate**		**Deaths**	**Rate**
Female Breast	12,833	490.7	Lung and Bronchus	6,466	247.2
Lung and Bronchus	8,265	316.0	Female Breast	2,710	103.6
Colon and Rectum	4,997	191.1	Colon and Rectum	2,085	79.7
Non-Hodgkin Lymphoma	1,996	76.3	Pancreas	1,464	56.0
Uterus (Corpus, NOS)	1,842	70.4	Ovary	1,222	46.7

Rates are per 100,000 persons.

Cancers of the urinary bladder and female breast include *in situ* cases.

Brain and other central nervous system cancer excludes benign cases.

Rates based on counts less than 16 are unstable and should be used with caution.

Rates are calculated using the bridged-race population estimates obtained from the National Center for Health Statistics available online at www.cdc.gov/nchs/nvss/bridged_race/data_documentation.htm#vintage2009.

Table 12 (continued): 2004 – 2008 Top Five Cancer Incidence and Mortality Sites by Age Group, Race and Gender

Minority Males

Incidence			Mortality		
Ages 0 to 19					
	Cases	**Rate**		**Deaths**	**Rate**
Leukemia	63	3.4	Leukemia	17	0.9
Brain and Other CNS	49	2.7	Brain and Other CNS	9	0.5
Non-Hodgkin Lymphoma	31	1.7	Soft Tissue	5	0.3
Hodgkin Disease	21	1.1	Endocrine	3	0.2
Soft Tissue	18	1.0	Non-Hodgkin Lymphoma	3	0.2
Ages 20 to 44					
	Cases	**Rate**		**Deaths**	**Rate**
Colon and Rectum	172	8.6	Lung and Bronchus	60	3.0
Non-Hodgkin Lymphoma	152	7.6	Colon and Rectum	47	2.3
Prostate	107	5.3	Leukemia	29	1.4
Kidney	106	5.3	Non-Hodgkin Lymphoma	22	1.1
Testes	105	5.2	Oral Cavity	21	1.0
Ages 45 to 64					
	Cases	**Rate**		**Deaths**	**Rate**
Prostate	4,379	385.5	Lung and Bronchus	1,309	115.2
Lung and Bronchus	1,811	159.4	Colon and Rectum	358	31.5
Colon and Rectum	1,103	97.1	Liver	239	21.0
Oral Cavity	582	51.2	Pancreas	225	19.8
Kidney	565	49.7	Prostate	213	18.8
Ages 65 and above					
	Cases	**Rate**		**Deaths**	**Rate**
Prostate	4,251	1186.7	Lung and Bronchus	1,662	463.9
Lung and Bronchus	1,906	532.1	Prostate	1,242	346.7
Colon and Rectum	1,032	288.1	Colon and Rectum	504	140.7
Urinary Bladder	392	109.4	Pancreas	281	78.4
Kidney	309	86.3	Stomach	191	53.3

Rates are per 100,000 persons.

Cancers of the urinary bladder and female breast include *in situ* cases.

Brain and other central nervous system cancer excludes benign cases.

Rates based on counts less than 16 are unstable and should be used with caution.

Rates are calculated using the bridged-race population estimates obtained from the National Center for Health Statistics available online at www.cdc.gov/nchs/nvss/bridged_race/data_documentation.htm#vintage2009.

Table 12 (continued): 2004 – 2008 Top Five Cancer Incidence and Mortality Sites by Age Group, Race and Gender

Minority Females

Incidence			Mortality		
Ages 0 to 19					
	Cases	**Rate**		**Deaths**	**Rate**
Leukemia	47	2.6	Leukemia	15	0.8
Brain and Other CNS	38	2.1	Brain and Other CNS	10	0.6
Endocrine	22	1.2	Soft Tissue	3	0.2
Kidney	20	1.1	Liver	2	0.1
Bone	17	1.0	Bone	2	0.1
Ages 20 to 44					
	Cases	**Rate**		**Deaths**	**Rate**
Female Breast	1,298	59.0	Female Breast	214	9.7
Endocrine	296	13.5	Colon and Rectum	58	2.6
Colon and Rectum	194	8.8	Lung and Bronchus	46	2.1
Cervix Uteri	185	8.4	Cervix Uteri	45	2.0
Non-Hodgkin Lymphoma	153	7.0	Leukemia	27	1.2
Ages 45 to 64					
	Cases	**Rate**		**Deaths**	**Rate**
Female Breast	4,073	299.4	Female Breast	745	54.8
Colon and Rectum	1,002	73.7	Lung and Bronchus	644	47.3
Lung and Bronchus	976	71.7	Colon and Rectum	293	21.5
Uterus (Corpus, NOS)	498	36.6	Pancreas	169	12.4
Endocrine	305	22.4	Ovary	120	8.8
Ages 65 and above					
	Cases	**Rate**		**Deaths**	**Rate**
Female Breast	2,622	444.0	Lung and Bronchus	984	166.6
Colon and Rectum	1,289	218.3	Female Breast	699	118.4
Lung and Bronchus	1,217	206.1	Colon and Rectum	618	104.6
Uterus (Corpus, NOS)	534	90.4	Pancreas	467	79.1
Pancreas	470	79.6	Uterus (Corpus, NOS)	254	43.0

Rates are per 100,000 persons.

Cancers of the urinary bladder and female breast include *in situ* cases.

Brain and other central nervous system cancer excludes benign cases.

Rates based on counts less than 16 are unstable and should be used with caution.

Rates are calculated using the bridged-race population estimates obtained from the National Center for Health Statistics available online at www.cdc.gov/nchs/nvss/bridged_race/data_documentation.htm#vintage2009.

Table 13: 2008 Cancer Incidence and Mortality by Race and Ethnicity

Non-Hispanic Whites

Incidence			Mortality		
	Cases	**Rate**		**Deaths**	**Rate**
Female Breast	6,126	153.4	Lung and Bronchus	4,394	57.5
Lung and Bronchus	5,850	76.2	Colon and Rectum	1,077	14.2
Prostate	4,932	137.1	Female Breast	924	21.9
Colon and Rectum	3,092	40.9	Pancreas	773	10.1
Melanoma (Skin)	2,032	28.3	Prostate	587	20.3
Urinary Bladder	1,747	23.0	Leukemia	500	6.7
Non-Hodgkin Lymphoma	1,451	19.6	Non-Hodgkin Lymphoma	473	6.3
Kidney	1,205	16.1	Liver	371	4.9
Oral Cavity	962	12.7	Brain and Other CNS	344	4.7
Uterus (Corpus, NOS)	945	22.9	Ovary	341	7.8

Non-Hispanic Blacks

Incidence			Mortality		
	Cases	**Rate**		**Deaths**	**Rate**
Prostate	1,687	231.7	Lung and Bronchus	867	52.4
Female Breast	1,549	150.5	Colon and Rectum	382	23.3
Lung and Bronchus	1,155	67.6	Female Breast	294	29.0
Colon and Rectum	905	53.2	Prostate	286	58.6
Kidney	320	17.6	Pancreas	209	12.8
Non-Hodgkin Lymphoma	265	15.1	Liver	117	6.4
Pancreas	255	15.4	Multiple Myeloma	115	7.1
Uterus (Corpus, NOS)	236	23.8	Stomach	109	6.8
Oral Cavity	220	11.9	Leukemia	90	5.6
Multiple Myeloma	216	13.1	Esophagus	80	4.6

Rates are per 100,000 persons and are age-adjusted to the 2000 U.S. Census.

Cancers of the urinary bladder and female breast include *in situ* cases.

Brain and other central nervous system cancer excludes benign cases.

Rates based on counts less than 16 are unstable and should be used with caution.

Rates are calculated using the bridged-race population estimates obtained from the National Center for Health Statistics available online at www.cdc.gov/nchs/nvss/bridged_race/data_documentation.htm#vintage2009.

Hispanic ethnicity is independent of race. Hispanic ethnicity is determined by self-report and the National Hispanic Identification Algorithm available online at www.naaccr.org/LinkClick.aspx?fileticket=iTvgbzLrx8I%3d&tabid=118&mid=458.

Approximately 17 percent of patients of American Indian race are reported as a different race. Therefore, cancer incidence for American Indians is assumed to be underestimated (Yankaskas BC, Knight K, Fleg A, Rao, C. Misclassification of American Indian Race in State Cancer Data among Non-federally Recognized Indians in North Carolina. *Journal of Registry Management.* 2009;36(1):7-11.).

Table 13 (continued): 2008 Cancer Incidence and Mortality by Race and Ethnicity

Non-Hispanic Other Races

Incidence			Mortality		
	Cases	**Rate**		**Deaths**	**Rate**
Female Breast	114	85.1	Lung and Bronchus	58	29.2
Prostate	94	102.9	Liver	20	7.9
Lung and Bronchus	78	35.8	Female Breast	17	13.2
Colon and Rectum	63	30.2	Colon and Rectum	15	7.9
Endocrine	42	15.1	Prostate	13	19.7
Non-Hodgkin Lymphoma	33	14.9	Stomach	11	6.6
Liver	27	11.3	Pancreas	9	5.6
Oral Cavity	21	7.7	Brain and Other CNS	9	3.8
Urinary Bladder	21	10.8	Leukemia	8	3.3
Kidney	19	7.6	Ovary	7	5.6
			Oral Cavity	7	3.5

Hispanics

Incidence			Mortality		
	Cases	**Rate**		**Deaths**	**Rate**
Female Breast	169	125.3	Lung and Bronchus	33	18.2
Prostate	81	93.9	Leukemia	16	5.6
Colon and Rectum	67	30.4	Female Breast	15	11.0
Lung and Bronchus	51	27.6	Liver	14	7.0
Leukemia	49	9.9	Stomach	10	4.7
Non-Hodgkin Lymphoma	43	18.0	Brain and Other CNS	10	3.0
Endocrine	42	8.6	Colon and Rectum	9	3.4
Kidney	41	17.3	Prostate	9	12.7
Cervix Uteri	27	14.1	Non-Hodgkin Lymphoma	9	3.2
Stomach	25	9.2	Pancreas	7	3.2

Rates are per 100,000 persons and are age-adjusted to the 2000 U.S. Census.

Cancers of the urinary bladder and female breast include *in situ* cases.

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Table 14: 2008 Top Ten Cancer Incidence and Mortality Sites by Race and Ethnicity

Non-Hispanic Whites

Incidence			Mortality		
	Cases	**Rate**		**Deaths**	**Rate**
Female Breast	6,126	153.4	Lung and Bronchus	4,394	57.5
Lung and Bronchus	5,850	76.2	Colon and Rectum	1,077	14.2
Prostate	4,932	137.1	Female Breast	924	21.9
Colon and Rectum	3,092	40.9	Pancreas	773	10.1
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Non-Hodgkin Lymphoma	1,451	19.6	Non-Hodgkin Lymphoma	473	6.3
Kidney	1,205	16.1	Liver	371	4.9
Oral Cavity	962	12.7	Brain and Other CNS	344	4.7
Uterus (Corpus, NOS)	945	22.9	Ovary	341	7.8

Non-Hispanic Blacks

Incidence			Mortality		
	Cases	**Rate**		**Deaths**	**Rate**
Prostate	1,687	231.7	Lung and Bronchus	867	52.4
Female Breast	1,549	150.5	Colon and Rectum	382	23.3
Lung and Bronchus	1,155	67.6	Female Breast	294	29.0
Colon and Rectum	905	53.2	Prostate	286	58.6
Kidney	320	17.6	Pancreas	209	12.8
Non-Hodgkin Lymphoma	265	15.1	Liver	117	6.4
Pancreas	255	15.4	Multiple Myeloma	115	7.1
Uterus (Corpus, NOS)	236	23.8	Stomach	109	6.8
Oral Cavity	220	11.9	Leukemia	90	5.6
Multiple Myeloma	216	13.1	Esophagus	80	4.6

Rates are per 100,000 persons and are age-adjusted to the 2000 U.S. Census.

Cancers of the urinary bladder and female breast include *in situ* cases.

Brain and other central nervous system cancer excludes benign cases.

Rates based on counts less than 16 are unstable and should be used with caution.

Rates are calculated using the bridged-race population estimates obtained from the National Center for Health Statistics available online at www.cdc.gov/nchs/nvss/bridged_race/data_documentation.htm#vintage2009.

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Table 14 (continued): 2008 Top Ten Cancer Incidence and Mortality Sites by Race and Ethnicity

Non-Hispanic Other Races

Incidence			Mortality		
	Cases	Rate		Deaths	Rate
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Prostate	94	102.9	Liver	20	7.9
Lung and Bronchus	78	35.8	Female Breast	17	13.2
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Liver	27	11.3	Pancreas	9	5.6
Oral Cavity	21	7.7	Brain and Other CNS	9	3.8
Urinary Bladder	21	10.8	Leukemia	8	3.3
Kidney	19	7.6	Ovary	7	5.6
			Oral Cavity	7	3.5

Hispanics

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Prostate	81	93.9	Leukemia	16	5.6
Colon and Rectum	67	30.4	Female Breast	15	11.0
Lung and Bronchus	51	27.6	Liver	14	7.0
Leukemia	49	9.9	Stomach	10	4.7
Non-Hodgkin Lymphoma	43	18.0	Brain and Other CNS	10	3.0
Endocrine	42	8.6	Colon and Rectum	9	3.4
Kidney	41	17.3	Prostate	9	12.7
Cervix Uteri	27	14.1	Non-Hodgkin Lymphoma	9	3.2
Stomach	25	9.2	Pancreas	7	3.2

Rates are per 100,000 persons and are age-adjusted to the 2000 U.S. Census.

Cancers of the urinary bladder and female breast include *in situ* cases.

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Table 15: 2008 Cancer Incidence and Mortality Median Age

Incidence

				Non-Hispanic			
	All	**Males**	**Females**	**Whites**	**Blacks**	**Others**	**Hispanics**
All Cancers	65	65	64	66	62	60	51
Oral Cavity	61	60	64	61.5	59	55	57
Esophagus	67	66	71	66.5	67	72	69
Stomach	68	66	70	69	65	58	49
Colon and Rectum	67	66	69	69	63	62	61
Liver	61	60	68	64	59	59	57
Gallbladder	70	70	70	72	68	*	*
Pancreas	69	67	73	70	66	67	57
Larynx	63.5	64	61	64	62	*	53
Lung and Bronchus	69	68	69	69	65	64	62
Bone	42	41	42.5	44	49.5	*	18
Soft Tissue	53	55	52	56	48	*	37
Melanoma (Skin)	60	64	54	60	63	58	45
Female Breast	61	.	61	62	57	56.5	49
Cervix Uteri	49	.	49	50	51	67	42
Uterus (Corpus, NOS)	62	.	62	62	65	52	54
Ovary	65	.	65	66	63	56	58
Prostate	65	65	.	66	64	65.5	66
Testes	35	35	.	37	37	.	26
Urinary Bladder	72	72	74	73	69	69	71.5
Kidney	63	62	64	65	58	55	56
Endocrine	51	56.5	49	52	50	49	37.5
Multiple Myeloma	69	68	70	70	68	64.5	61.5
Leukemia	66	65	66	68	57	56	29
Brain and Other CNS	58	57	59	59	55	43	41.5
Hodgkin Disease	43	44	42	45	37	*	35
Non-Hodgkin Lymphoma	66	65	68	67	57	57	55
Other Cancers	68	67	69	70	62	66	49.5

Cancers of the urinary bladder and female breast include *in situ* cases.

Brain and other central nervous system cancer excludes benign cases.

*Median ages based on incidence counts less than five are suppressed.

Table 15 (continued): 2008 Cancer Incidence and Mortality Median Age

Mortality

	All	Males	Females	Non-Hispanic Whites	Non-Hispanic Blacks	Non-Hispanic Others	Hispanics
All Cancers	71	70	72	72	67	66	59
Oral Cavity	65	64	69	68	61	46	.
Esophagus	67	66	71	69	64	48	69
Stomach	71	70	75	74	68	73	61.5
Colon and Rectum	71	69	74	73	66	62	50
Liver	66	63	71	70	60	61.5	61.5
Gallbladder	73	74	73	74	71	73	70
Pancreas	72	69	74	73	68	74	58
Larynx	69.5	69.5	68.5	70.5	69	67	.
Lung and Bronchus	70	70	71	71	67	67	66
Bone	42	37	65	47	57	.	31
Soft Tissue	70	68	70	70	67	64	37
Melanoma (Skin)	69	70	68.5	69	63	67.5	.
Female Breast	67	.	67	68	63	59	51
Cervix Uteri	60	.	60	57.5	60	60	53.5
Uterus (Corpus, NOS)	69	.	69	70	69	65	57
Ovary	71	.	71	72	67	62	65.5
Prostate	79	79	.	80	77	71	69
Testes	42	42	.	44	39	.	33
Urinary Bladder	77	77	78	78	69.5	78	79
Kidney	70	69	76	71	65	70.5	81
Endocrine	71.5	59	76	75	50	87	.
Multiple Myeloma	72	71	74	75	68	69	75
Leukemia	73	71	75.5	74	69	59	36
Brain and Other CNS	64	63	66	65.5	52	46	43
Hodgkin Disease	64	57.5	68	66	53	.	.
Non-Hodgkin Lymphoma	73	71	76	74	66	74.5	58
Other Cancers	73	71	75	74	68	75	59

Cancers of the urinary bladder and female breast include *in situ* cases.

Brain and other central nervous system cancer excludes benign cases.

*Median ages based on incidence counts less than five are suppressed.

Figure 1a: 1997 – 2008 Colorectal Cancer Incidence Trends by Gender and Race

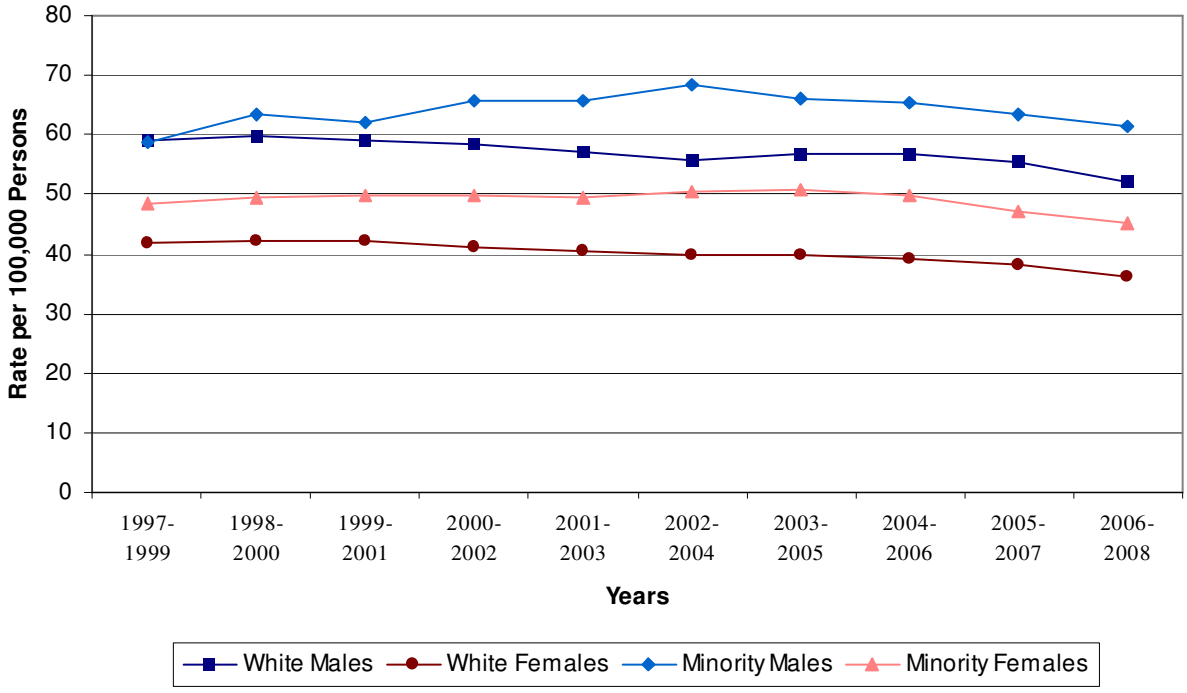


Figure 1b: 1997 – 2008 Colorectal Cancer Mortality Trends by Gender and Race

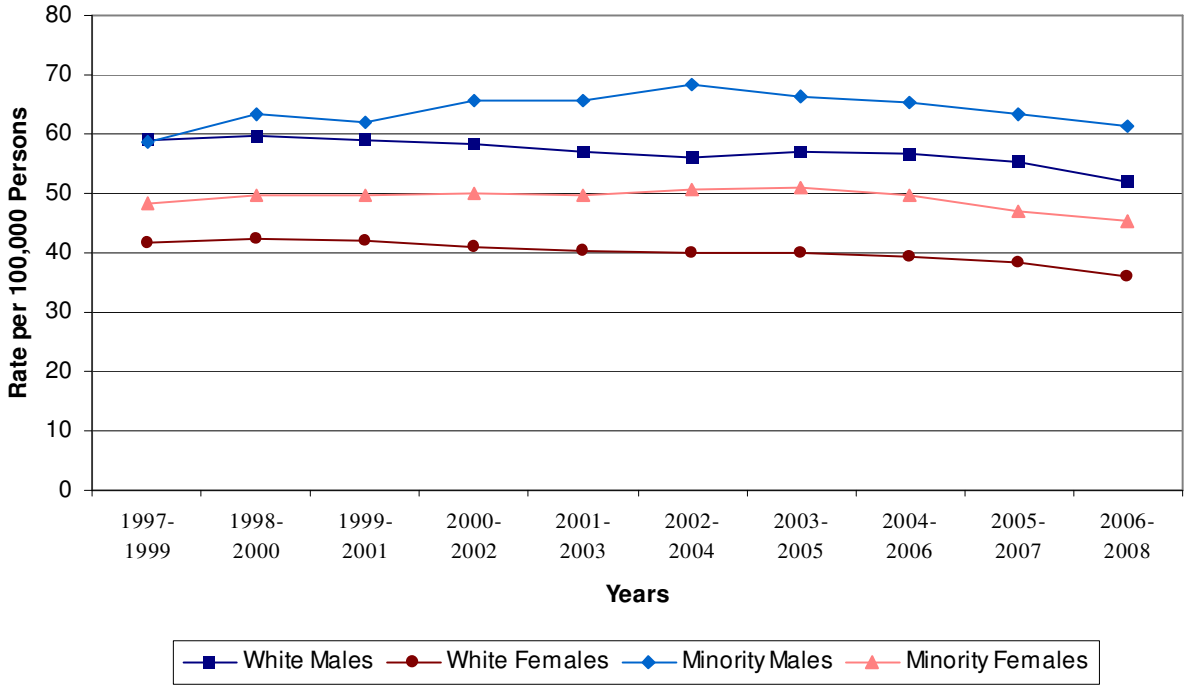


Figure 2a: 1997 – 2008 Lung and Bronchus Cancer Incidence Trends by Gender and Race

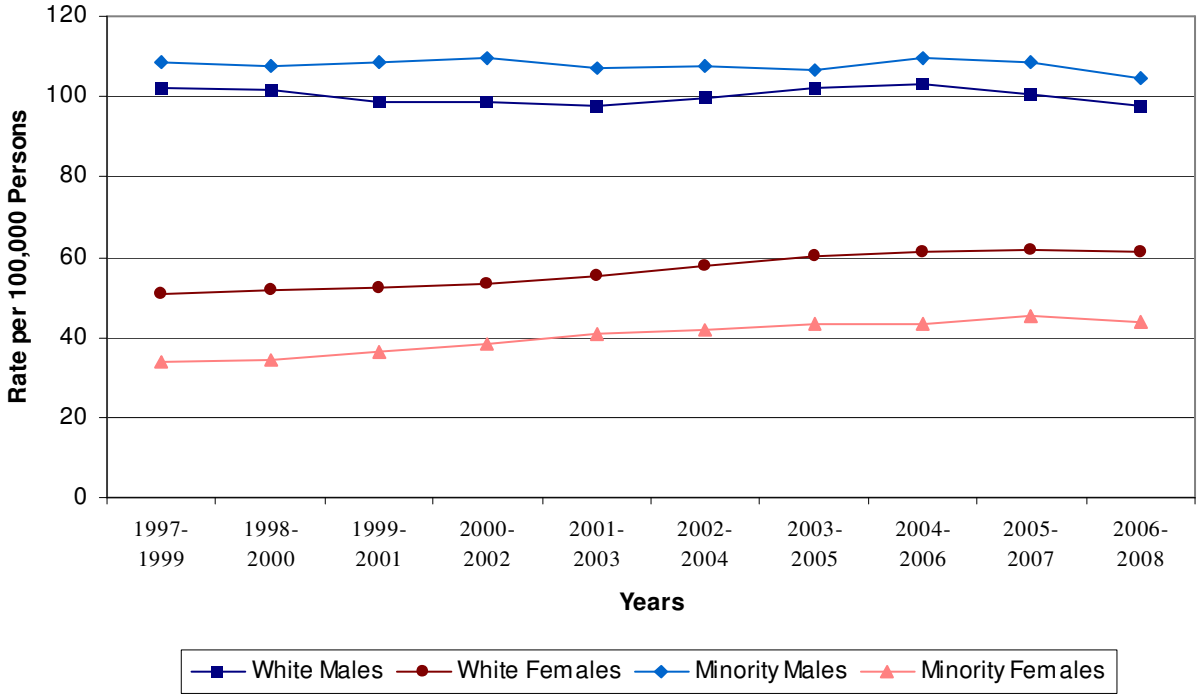


Figure 2b: 1997 – 2008 Lung and Bronchus Cancer Mortality Trends by Gender and Race

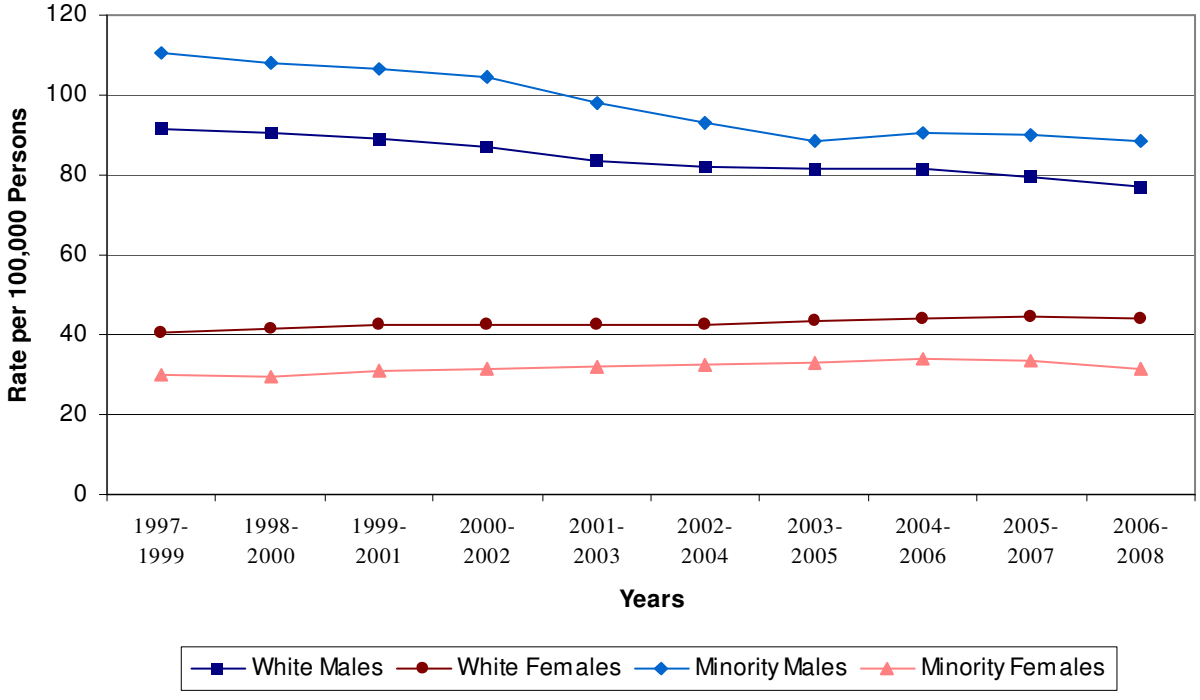


Figure 3a: 1997 – 2008 Female Breast Cancer Incidence Trends by Race

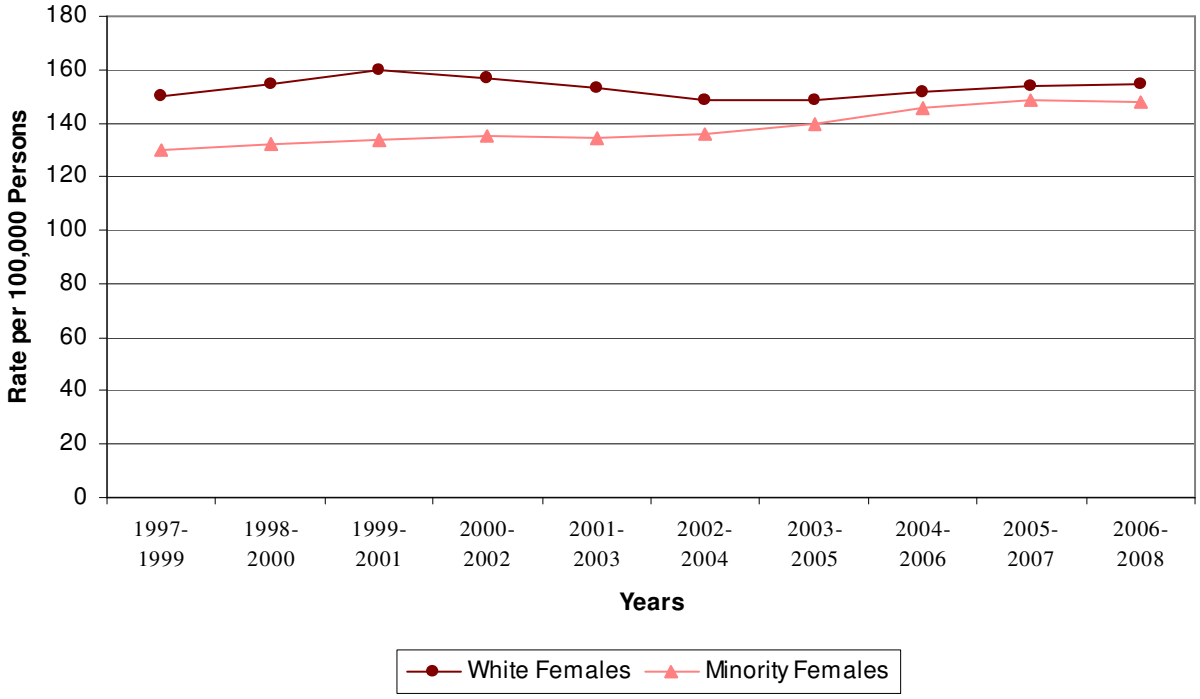


Figure 3b: 1997 – 2008 Female Breast Cancer Mortality Trends by Race

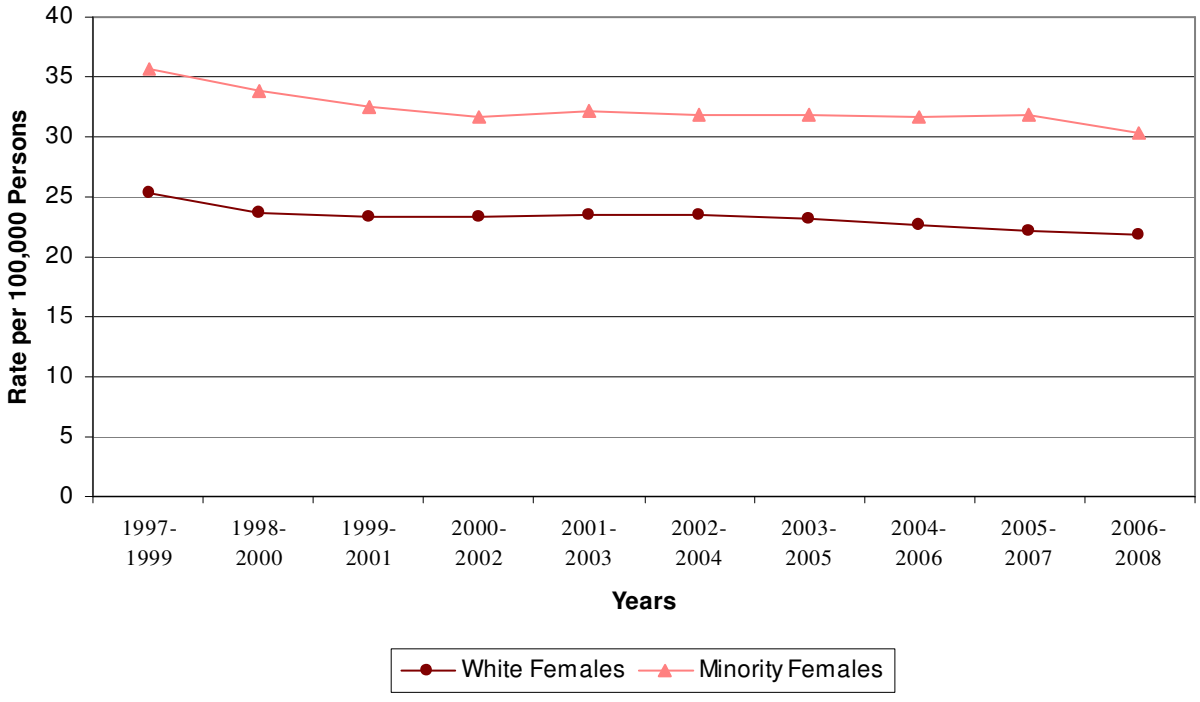


Figure 4a: 1997 – 2008 Prostate Cancer Incidence Trends by Race

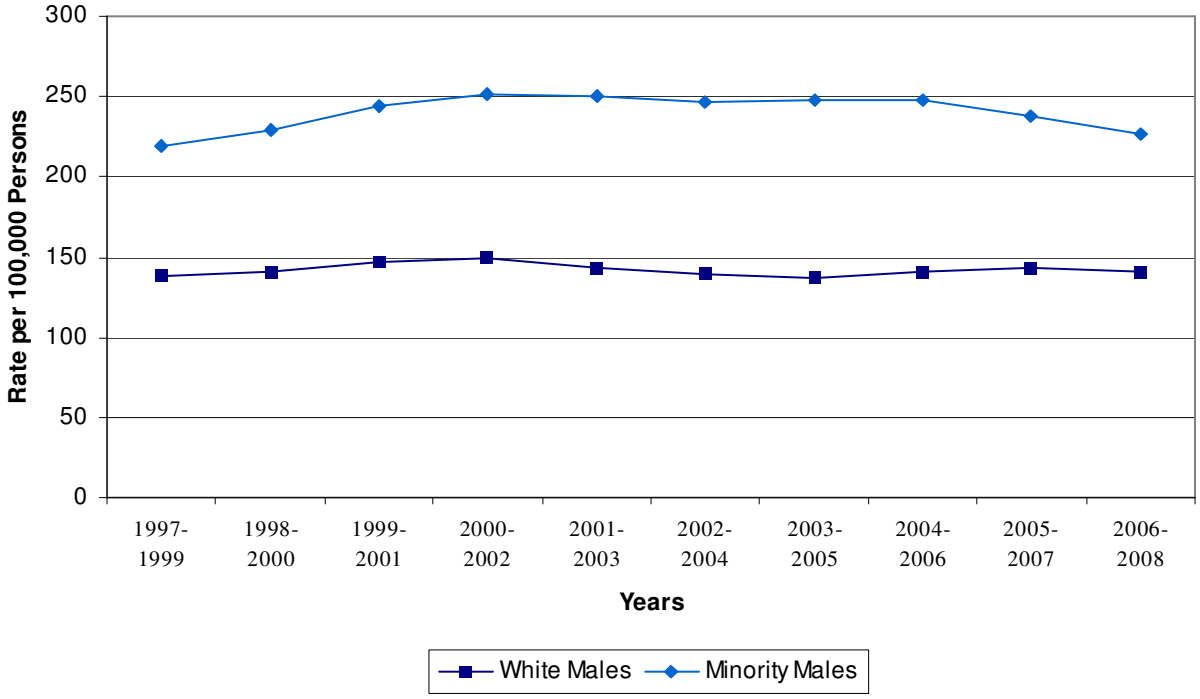


Figure 4b: 1997 – 2008 Prostate Cancer Mortality Trends by Race

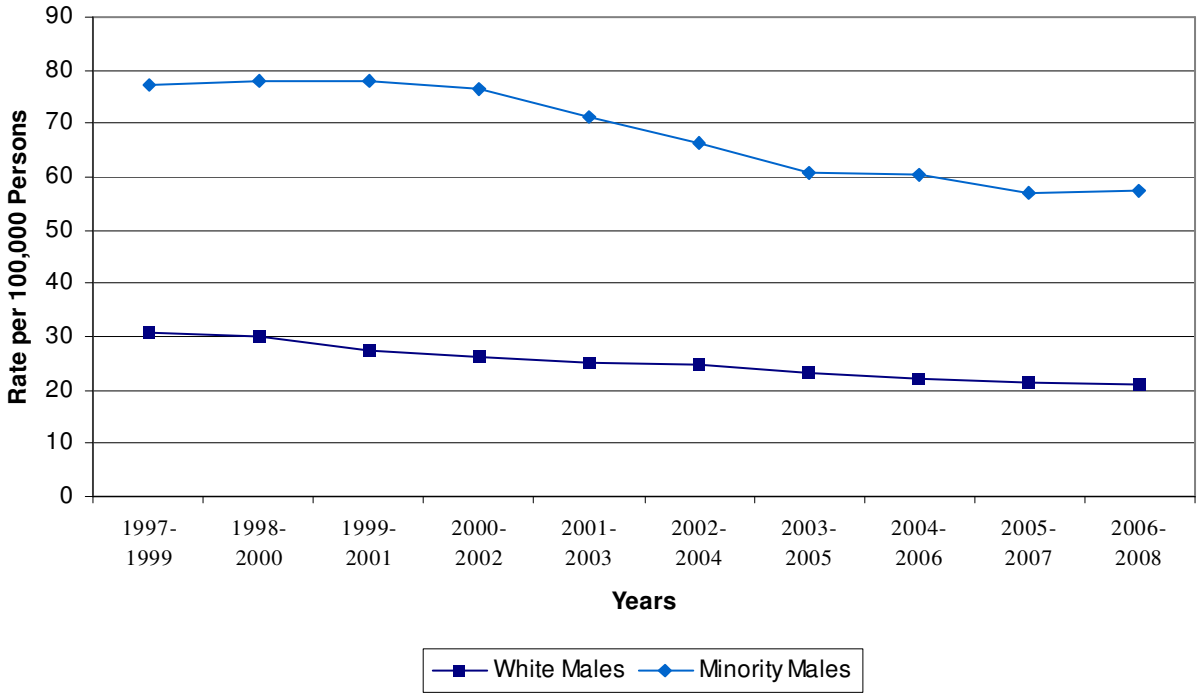


Figure 5: 1997 – 2008 Oral Cavity Cancer Incidence Trends by Gender and Race

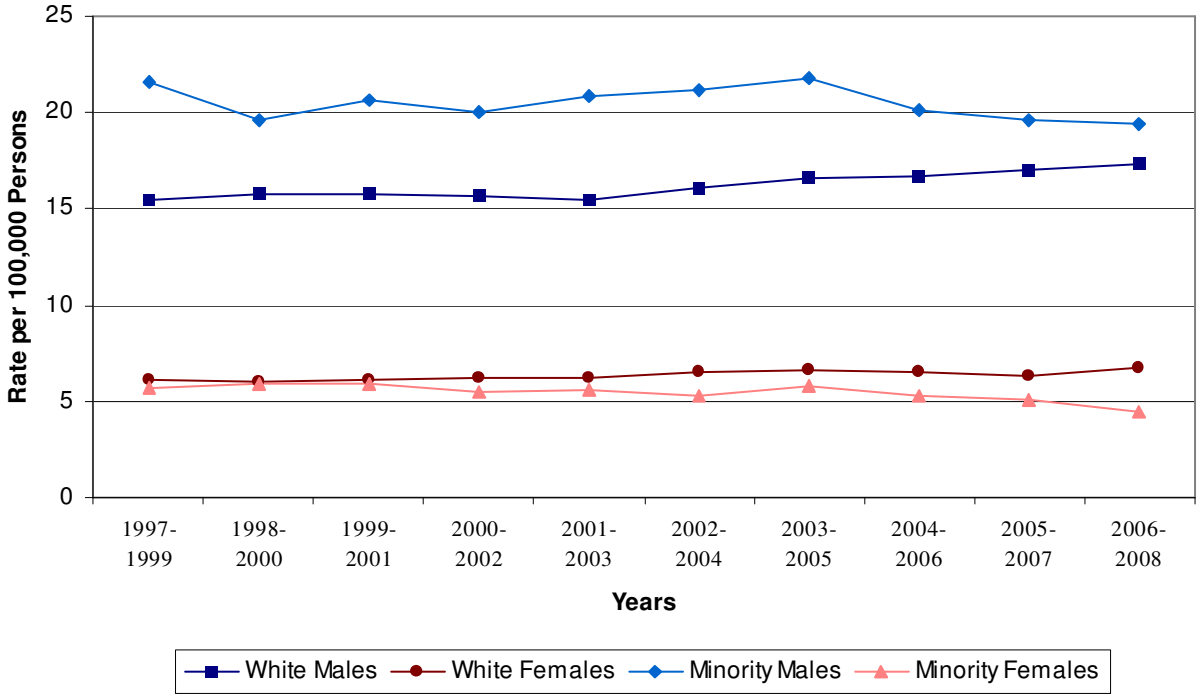


Figure 6: 1997 – 2008 Laryngeal Cancer Incidence Trends by Gender and Race

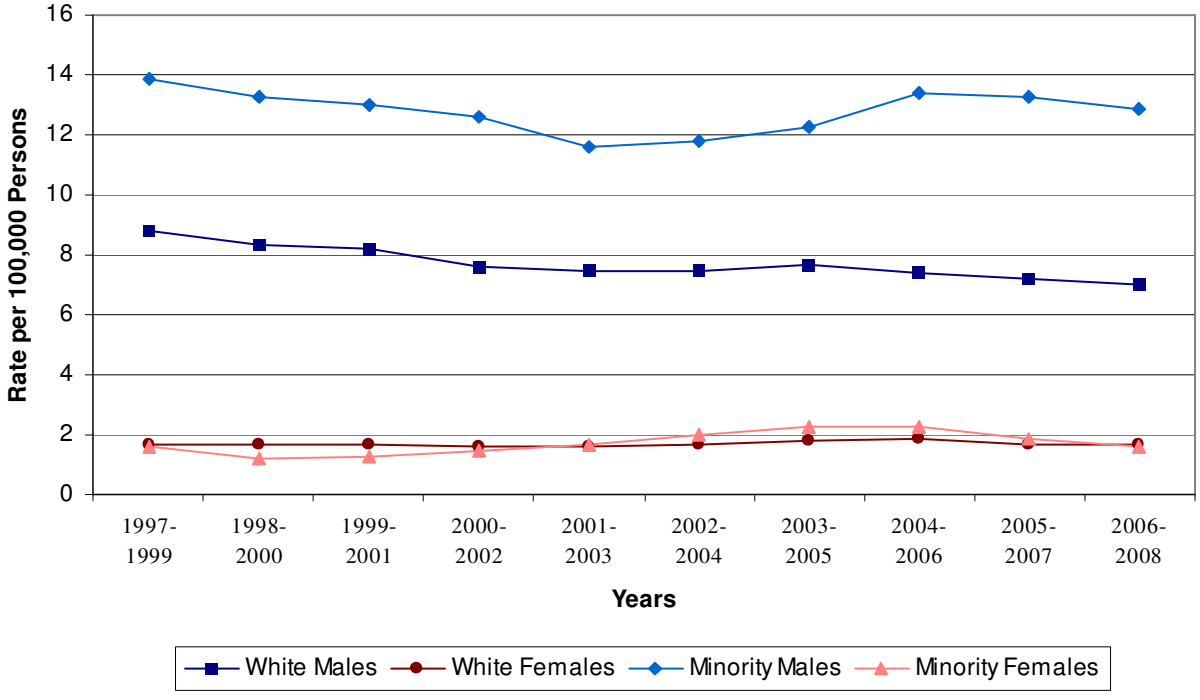


Figure 7: 1997 – 2008 Melanoma Incidence Trends by Gender and Race

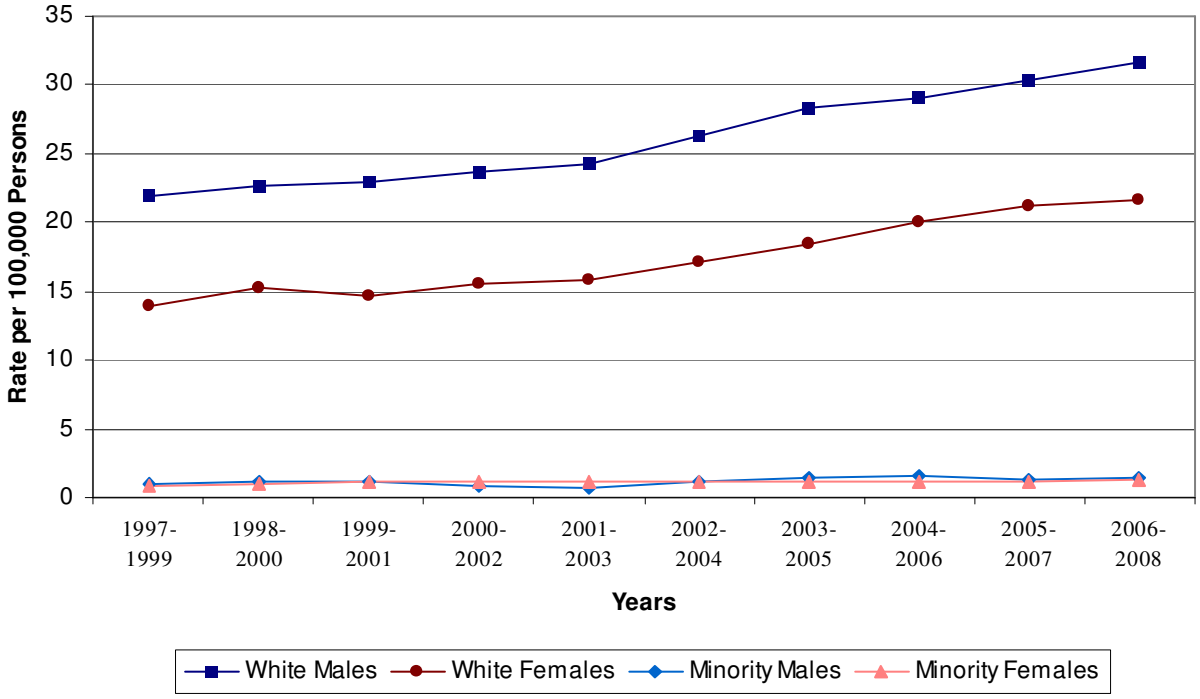


Figure 8: 1997 – 2008 Cervical Cancer Incidence Trends by Race

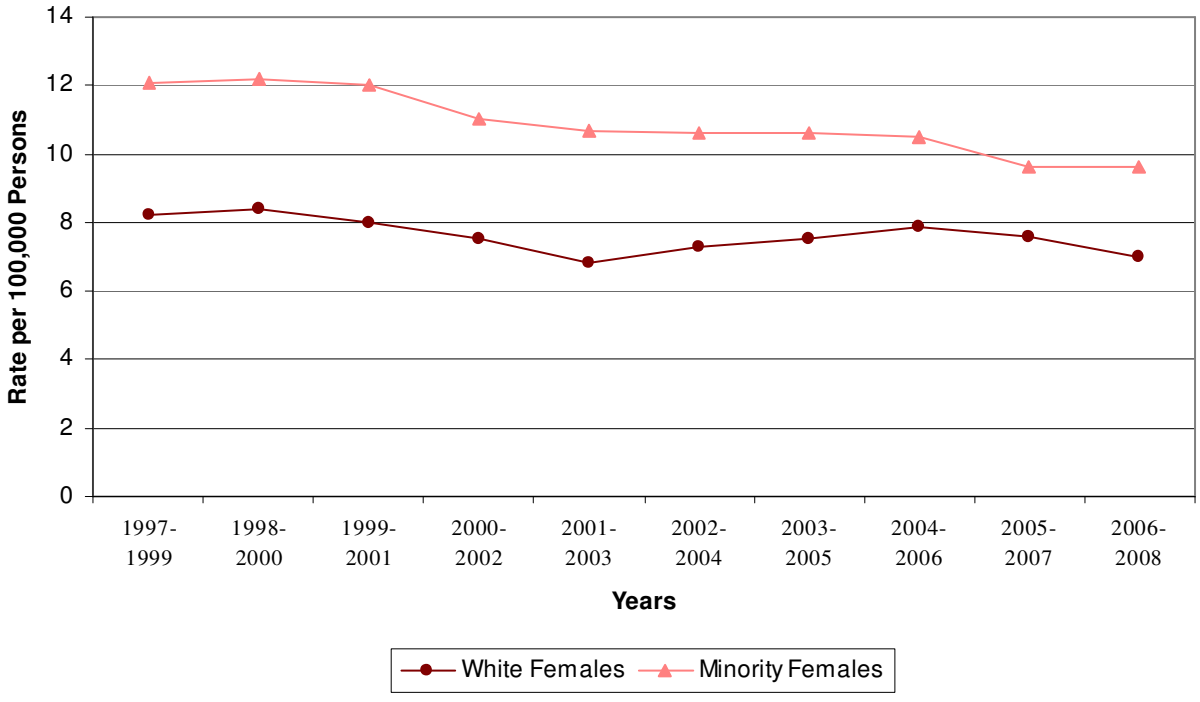


Figure 9: 1997 – 2008 Kidney Cancer Incidence Trends by Gender and Race

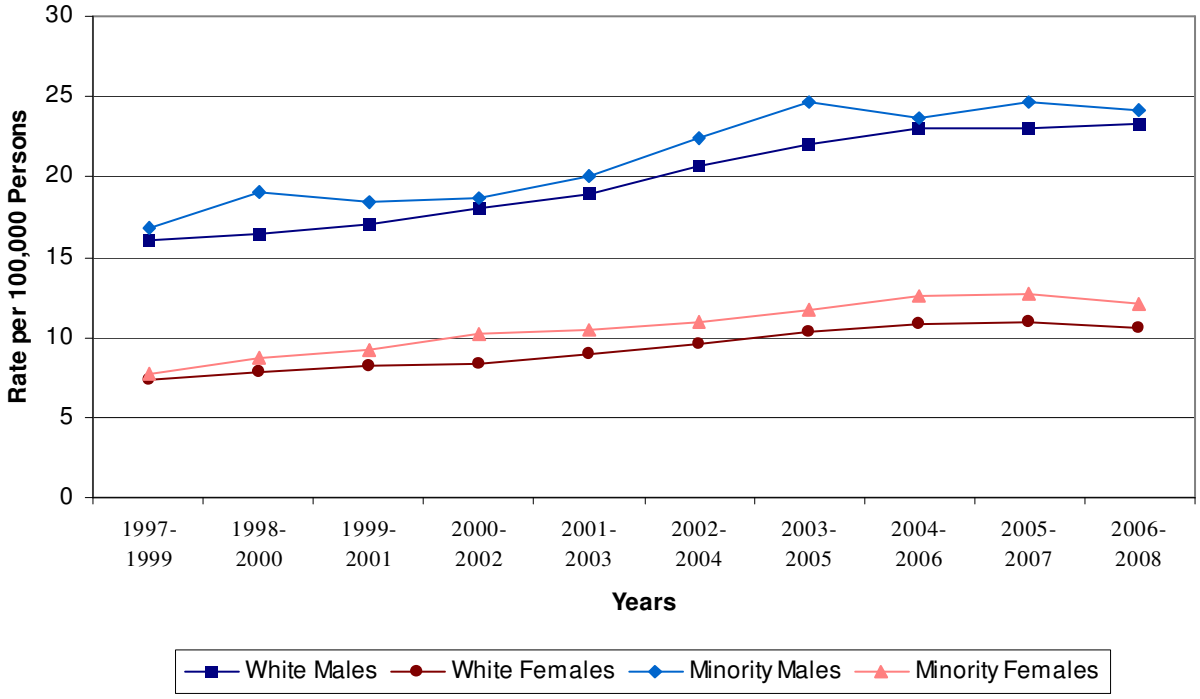


Figure 10: 1997 – 2008 Endocrine Cancer Incidence Trends by Gender and Race

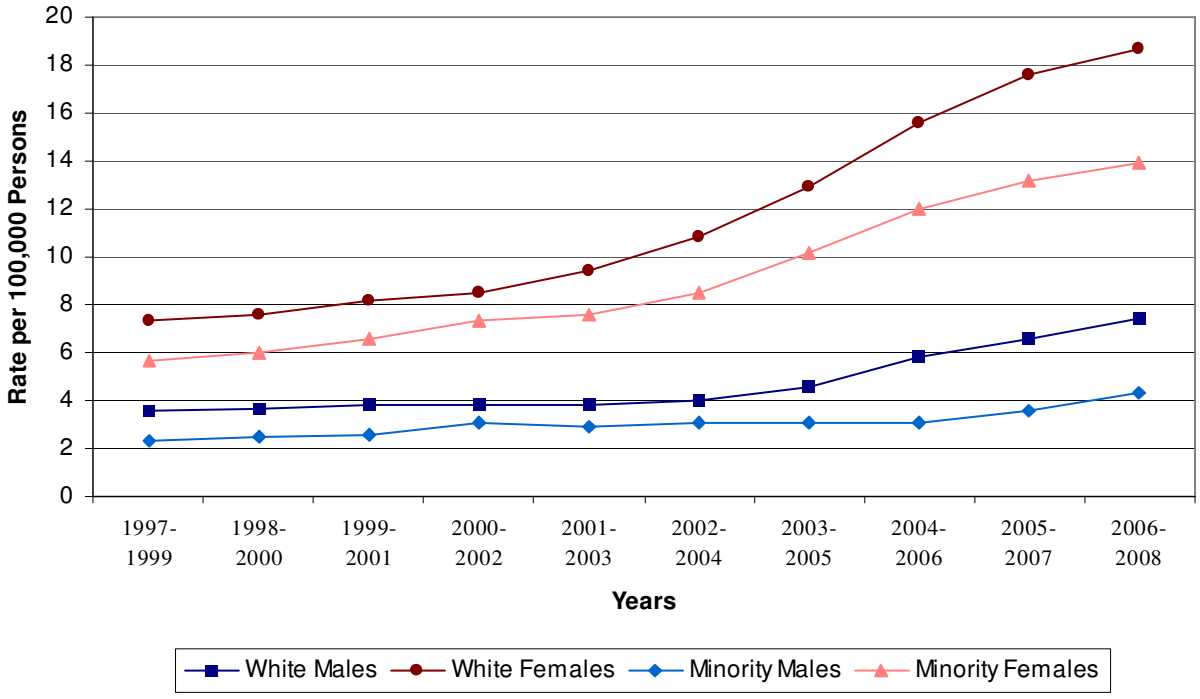


Figure 11: 1997 – 2008 Stomach Cancer Mortality Trends by Gender and Race

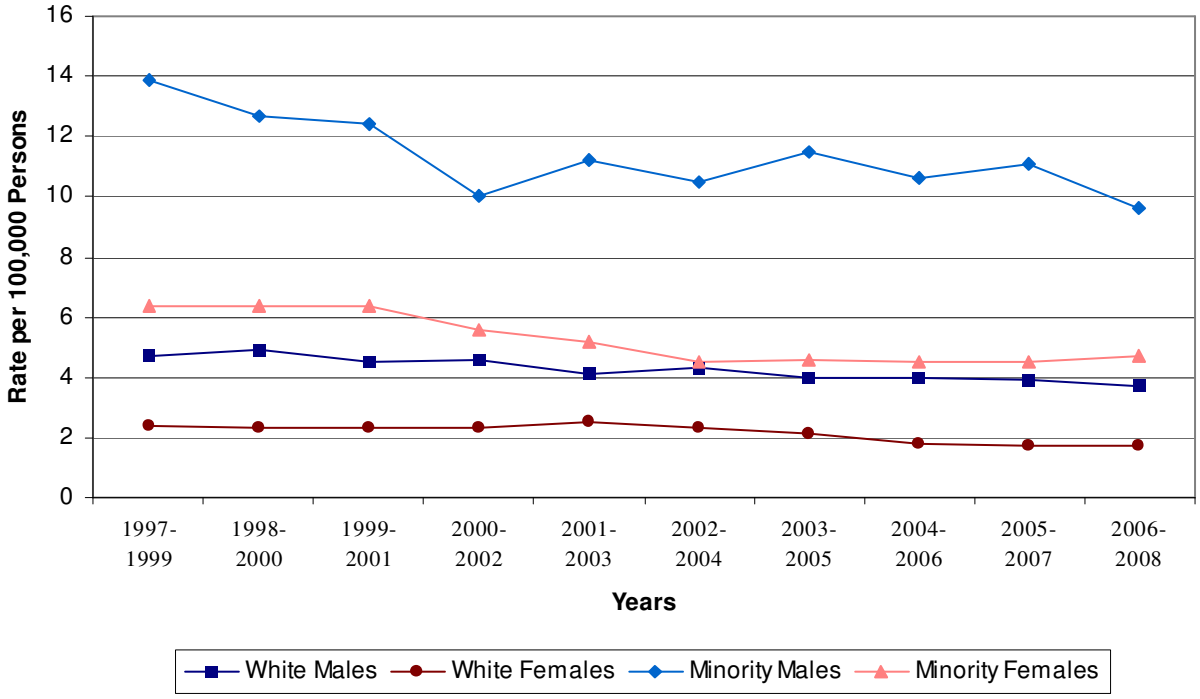


Figure 12: 1997 – 2008 Liver Cancer Mortality Trends by Gender and Race

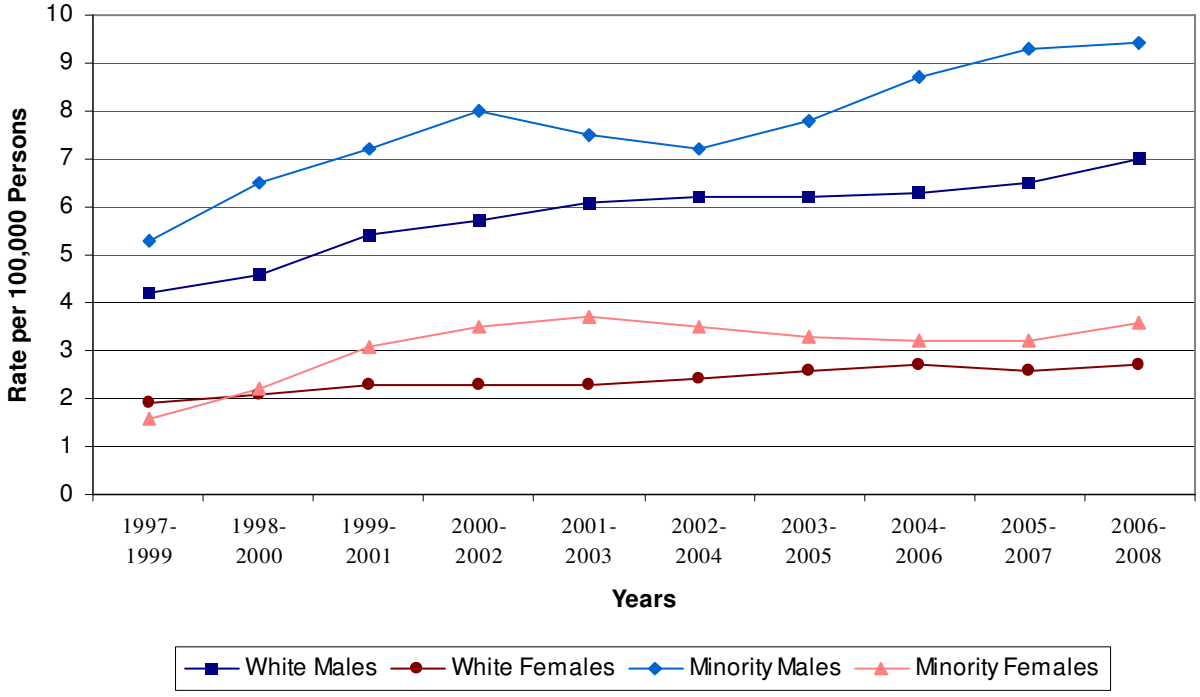


Figure 13: 1997 – 2008 Pancreatic Cancer Mortality Trends by Gender and Race

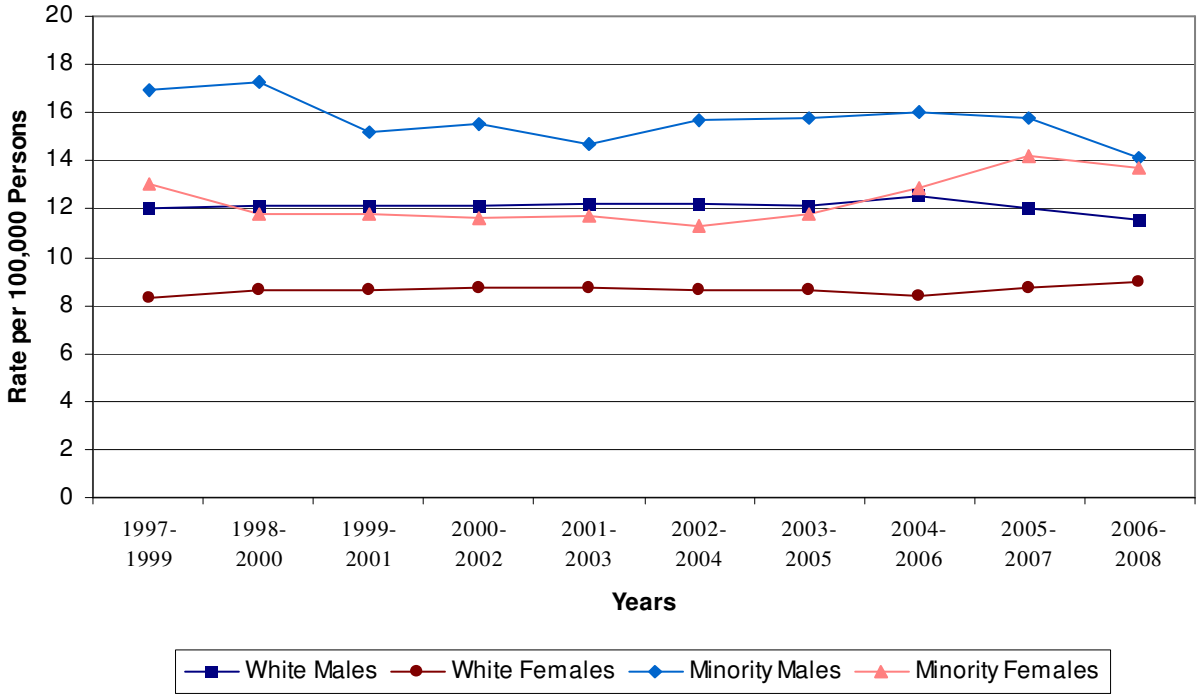


Figure 14: 1997 – 2008 Cervical Cancer Mortality Trends by Race

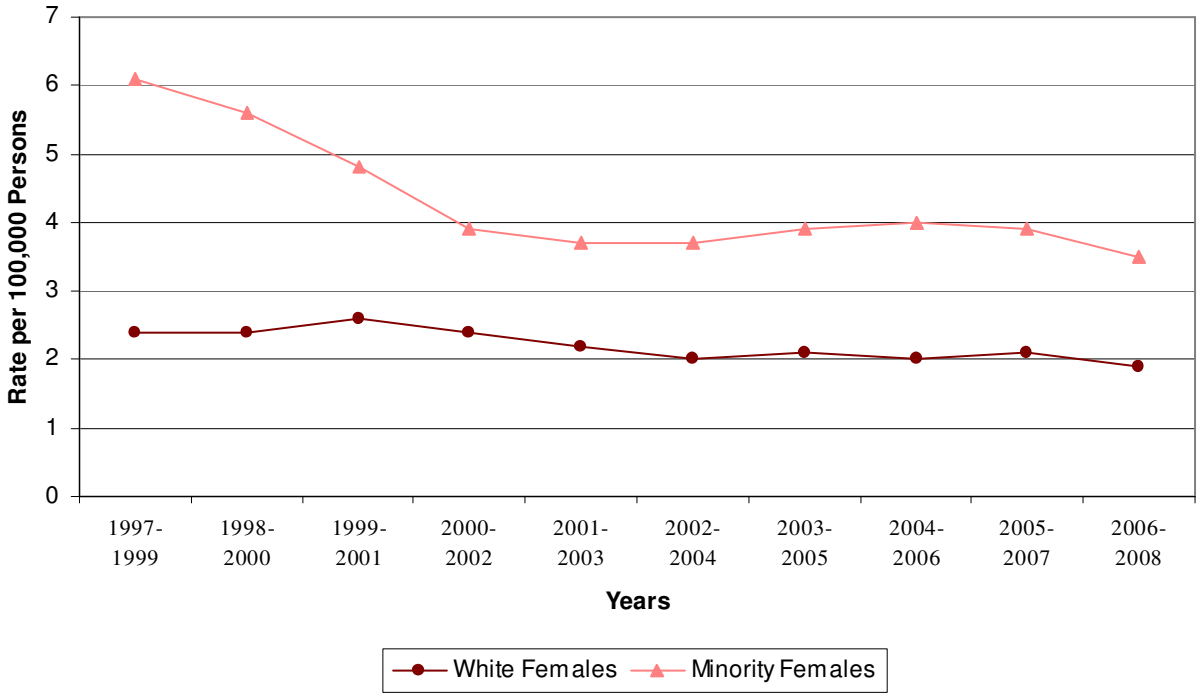
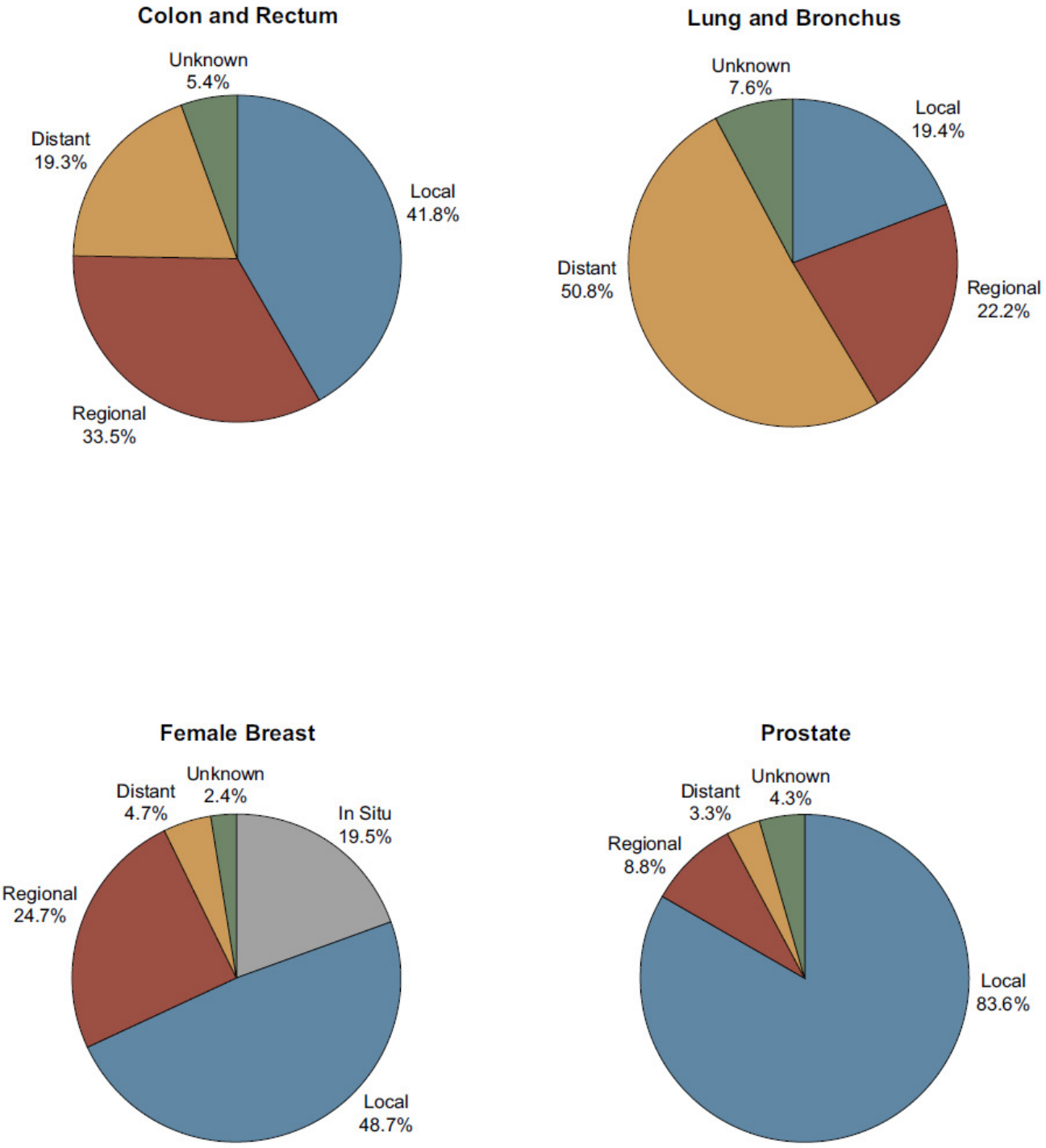


Figure 15: 2008 Percent of Top Four Cancer Cases by Stage



Appendix A: 2008 Population Estimates by Race and County

	Whites	Blacks	American Indian	Asian/ Pacific Islander	Total
North Carolina	6,889,047	2,034,474	120,478	203,135	9,247,134
Alamance	116,821	28,281	744	2,064	147,910
Alexander	33,697	2,351	96	442	36,586
Alleghany	10,750	200	29	46	11,025
Anson	12,576	12,237	143	233	25,189
Ashe	25,288	259	84	60	25,691
Avery	16,824	957	74	60	17,915
Beaufort	33,403	12,676	105	159	46,343
Bertie	6,995	12,335	107	29	19,466
Bladen	19,858	11,700	780	73	32,411
Brunswick	90,355	12,497	697	573	104,122
Buncombe	208,387	17,120	1,046	2,820	229,373
Burke	79,264	6,065	404	3,549	89,282
Cabarrus	139,017	25,719	747	3,076	168,559
Caldwell	74,717	4,438	209	498	79,862
Camden	7,921	1,603	32	76	9,632
Carteret	57,895	4,850	322	480	63,547
Caswell	15,091	7,986	53	59	23,189
Catawba	138,192	13,695	470	5,150	157,507
Chatham	53,175	8,575	255	1,368	63,373
Cherokee	25,500	565	416	80	26,561
Chowan	9,270	5,336	38	44	14,688
Clay	10,107	143	37	14	10,301
Cleveland	77,111	20,916	182	825	99,034
Columbus	35,470	16,785	1,847	191	54,293
Craven	71,701	23,760	491	1,449	97,401
Cumberland	176,629	119,672	5,490	8,895	310,686
Currituck	22,058	1,821	93	188	24,160
Dare	32,572	1,195	96	189	34,052
Davidson	140,224	15,190	684	1,893	157,991
Davie	37,839	2,951	101	191	41,082
Duplin	38,591	14,039	216	179	53,025
Durham	150,062	99,507	1,160	12,319	263,048
Edgecombe	22,040	30,024	156	179	52,399
Forsyth	253,929	93,545	1,456	6,210	355,140

Population estimates are from the bridged-race population estimates obtained from the National Center for Health Statistics available online at www.cdc.gov/nchs/nvss/bridged_race/data_documentation.htm#vintage2009.

Appendix A (continued): 2008 Population Estimates by Race and County

	Whites	Blacks	American Indian	Asian/ Pacific Islander	Total
Franklin	42,526	15,924	239	340	59,029
Gaston	171,563	31,759	750	2,761	206,833
Gates	7,449	4,164	46	87	11,746
Graham	7,264	56	617	43	7,980
Granville	36,932	19,302	506	347	57,087
Greene	12,110	8,399	106	39	20,654
Guilford	301,646	152,364	2,875	17,223	474,108
Halifax	22,828	29,911	1,954	401	55,094
Harnett	83,990	25,494	1,108	1,433	112,025
Haywood	55,442	924	330	179	56,875
Henderson	97,563	3,628	362	830	102,383
Hertford	8,421	14,528	285	123	23,357
Hoke	23,622	15,144	4,222	660	43,648
Hyde	3,261	1,950	23	26	5,260
Iredell	132,443	19,805	492	2,873	155,613
Jackson	31,413	965	4,078	333	36,789
Johnston	135,085	26,071	821	1,334	163,311
Jones	6,537	3,348	48	27	9,960
Lee	46,291	11,934	360	550	59,135
Lenoir	32,906	23,305	152	311	56,674
Lincoln	69,221	4,940	210	371	74,742
McDowell	41,370	1,858	150	534	43,912
Macon	32,130	661	108	203	33,102
Madison	19,927	310	59	74	20,370
Martin	12,881	10,406	97	103	23,487
Mecklenburg	580,966	266,491	5,354	39,645	892,456
Mitchell	15,427	127	94	43	15,691
Montgomery	21,398	5,514	177	618	27,707
Moore	72,131	12,569	696	635	86,031
Nash	57,766	35,017	523	819	94,125
New Hanover	158,247	30,996	888	2,567	192,698
Northampton	8,380	11,948	77	54	20,459
Onslow	131,751	31,653	1,509	4,320	169,233
Orange	100,629	17,946	628	7,782	126,985
Pamlico	9,442	2,842	74	72	12,430

Population estimates are from the bridged-race population estimates obtained from the National Center for Health Statistics available online at www.cdc.gov/nchs/nvss/bridged_race/data_documentation.htm#vintage2009.

Appendix A (continued): 2008 Population Estimates by Race and County

	Whites	Blacks	American Indian	Asian/ Pacific Islander	Total
Pasquotank	24,575	16,148	153	566	41,442
Pender	40,723	10,013	283	215	51,234
Perquimans	9,382	3,339	21	30	12,772
Person	26,529	10,630	240	102	37,501
Pitt	99,684	53,582	559	2,110	155,935
Polk	18,074	1,064	44	50	19,232
Randolph	130,103	8,615	798	1,447	140,963
Richmond	30,272	14,372	974	410	46,028
Robeson	46,519	31,222	49,801	1,154	128,696
Rockingham	73,459	17,834	334	487	92,114
Rowan	115,593	22,187	515	1,444	139,739
Rutherford	55,776	7,205	143	312	63,436
Sampson	43,517	18,210	1,235	475	63,437
Scotland	18,321	14,142	3,779	238	36,480
Stanly	51,181	7,111	152	1,241	59,685
Stokes	43,522	2,351	131	136	46,140
Surry	68,673	3,082	198	435	72,388
Swain	9,400	236	3,696	45	13,377
Transylvania	28,215	1,682	92	166	30,155
Tyrrell	2,350	1,680	9	65	4,104
Union	164,885	24,216	1,013	3,286	193,400
Vance	21,142	21,356	118	374	42,990
Wake	637,378	181,691	5,098	43,901	868,068
Warren	7,799	10,669	1,011	51	19,530
Washington	6,237	6,612	7	103	12,959
Watauga	43,876	1,002	150	393	45,421
Wayne	74,068	37,696	506	1,149	113,419
Wilkes	63,194	2,901	107	523	66,725
Wilson	46,043	30,746	243	660	77,692
Yadkin	36,097	1,423	70	111	37,701
Yancey	18,173	211	120	35	18,539

Population estimates are from the bridged-race population estimates obtained from the National Center for Health Statistics available online at www.cdc.gov/nchs/nvss/bridged_race/data_documentation.htm#vintage2009.

Appendix B: 2008 Population Estimates by Age Group and County

	0-19	20-44	45-64	65+	Total
North Carolina	2,522,524	3,206,862	2,359,724	1,158,024	9,247,134
Alamance	40,732	49,029	37,351	20,798	147,910
Alexander	9,100	12,105	10,332	5,049	36,586
Alleghany	2,416	3,106	3,291	2,212	11,025
Anson	6,325	8,453	6,770	3,641	25,189
Ashe	5,525	7,412	7,774	4,980	25,691
Avery	3,831	6,535	4,451	3,098	17,915
Beaufort	11,418	12,401	14,208	8,316	46,343
Bertie	5,082	5,592	5,648	3,144	19,466
Bladen	8,650	9,563	9,470	4,728	32,411
Brunswick	21,551	28,603	33,368	20,600	104,122
Buncombe	53,236	76,355	63,727	36,055	229,373
Burke	22,938	27,865	24,821	13,658	89,282
Cabarrus	50,568	59,045	41,013	17,933	168,559
Caldwell	20,052	25,193	22,456	12,161	79,862
Camden	2,825	3,161	2,503	1,143	9,632
Carteret	13,564	17,894	20,321	11,768	63,547
Caswell	5,473	7,030	7,127	3,559	23,189
Catawba	41,896	51,337	42,627	21,647	157,507
Chatham	15,193	21,062	17,927	9,191	63,373
Cherokee	5,788	6,825	8,187	5,761	26,561
Chowan	3,733	3,888	4,313	2,754	14,688
Clay	2,082	2,514	3,357	2,348	10,301
Cleveland	27,111	30,455	26,716	14,752	99,034
Columbus	14,825	16,511	14,739	8,218	54,293
Craven	25,167	31,735	25,245	15,254	97,401
Cumberland	95,060	118,811	67,701	29,114	310,686
Currituck	6,450	7,578	7,275	2,857	24,160
Dare	7,752	10,131	11,175	4,994	34,052
Davidson	41,834	50,842	43,888	21,427	157,991
Davie	10,727	12,273	11,855	6,227	41,082
Duplin	15,136	17,548	13,393	6,948	53,025
Durham	70,115	109,050	59,208	24,675	263,048
Edgecombe	15,439	15,920	15,030	6,010	52,399
Forsyth	98,128	119,464	91,817	45,731	355,140

Population estimates are from the bridged-race population estimates obtained from the National Center for Health Statistics available online at www.cdc.gov/nchs/nvss/bridged_race/data_documentation.htm#vintage2009.

Appendix B (continued): 2008 Population Estimates by Age Group and County

	0-19	20-44	45-64	65+	Total
Franklin	16,067	20,079	16,355	6,528	59,029
Gaston	55,754	69,423	54,838	26,818	206,833
Gates	3,251	3,541	3,337	1,617	11,746
Graham	1,933	2,261	2,205	1,581	7,980
Granville	14,606	20,892	15,167	6,422	57,087
Greene	5,160	7,741	5,323	2,430	20,654
Guilford	129,768	167,973	118,494	57,873	474,108
Halifax	14,751	16,163	15,393	8,787	55,094
Harnett	33,737	41,819	25,762	10,707	112,025
Haywood	12,591	15,959	16,672	11,653	56,875
Henderson	23,448	27,834	28,425	22,676	102,383
Hertford	6,145	7,162	6,465	3,585	23,357
Hoke	13,788	17,451	9,135	3,274	43,648
Hyde	1,089	1,799	1,538	834	5,260
Iredell	43,912	51,153	40,897	19,651	155,613
Jackson	9,188	12,656	9,556	5,389	36,789
Johnston	48,935	58,729	40,336	15,311	163,311
Jones	2,358	2,805	3,045	1,752	9,960
Lee	16,713	18,409	15,374	8,639	59,135
Lenoir	15,611	15,818	16,024	9,221	56,674
Lincoln	20,045	24,541	20,931	9,225	74,742
McDowell	10,712	14,169	12,089	6,942	43,912
Macon	7,292	8,180	9,721	7,909	33,102
Madison	4,882	6,258	5,774	3,456	20,370
Martin	6,068	6,398	7,021	4,000	23,487
Mecklenburg	255,951	357,226	203,411	75,868	892,456
Mitchell	3,562	4,512	4,560	3,057	15,691
Montgomery	7,587	8,649	7,530	3,941	27,707
Moore	20,789	23,476	23,119	18,647	86,031
Nash	25,730	28,409	26,064	13,922	94,125
New Hanover	46,446	71,173	49,219	25,860	192,698
Northampton	4,902	5,285	6,281	3,991	20,459
Onslow	51,052	78,422	27,688	12,071	169,233
Orange	35,062	47,731	31,306	12,886	126,985
Pamlico	2,463	3,218	4,062	2,687	12,430

Population estimates are from the bridged-race population estimates obtained from the National Center for Health Statistics available online at www.cdc.gov/nchs/nvss/bridged_race/data_documentation.htm#vintage2009.

Appendix B (continued): 2008 Population Estimates by Age Group and County

	0-19	20-44	45-64	65+	Total
Pasquotank	11,390	14,363	10,218	5,471	41,442
Pender	12,585	16,193	14,813	7,643	51,234
Perquimans	2,863	3,407	3,894	2,608	12,772
Person	9,761	11,349	11,164	5,227	37,501
Pitt	45,027	60,741	34,588	15,579	155,935
Polk	3,953	4,620	5,971	4,688	19,232
Randolph	38,123	45,827	37,973	19,040	140,963
Richmond	13,084	14,549	11,854	6,541	46,028
Robeson	39,973	43,810	31,050	13,863	128,696
Rockingham	23,110	27,955	26,516	14,533	92,114
Rowan	36,953	45,164	37,248	20,374	139,739
Rutherford	16,081	18,798	17,724	10,833	63,436
Sampson	18,350	20,775	15,972	8,340	63,437
Scotland	10,507	11,546	9,828	4,599	36,480
Stanly	15,632	18,950	15,953	9,150	59,685
Stokes	11,396	13,820	13,808	7,116	46,140
Surry	18,935	21,846	19,553	12,054	72,388
Swain	3,459	3,845	3,781	2,292	13,377
Transylvania	6,626	7,483	8,652	7,394	30,155
Tyrrell	876	1,521	1,069	638	4,104
Union	63,357	66,762	46,392	16,889	193,400
Vance	12,696	12,890	11,508	5,896	42,990
Wake	253,890	340,482	203,495	70,201	868,068
Warren	4,548	5,689	5,624	3,669	19,530
Washington	3,606	3,343	3,809	2,201	12,959
Watauga	10,653	18,855	10,298	5,615	45,421
Wayne	32,177	37,761	29,024	14,457	113,419
Wilkes	16,368	20,450	18,982	10,925	66,725
Wilson	21,571	24,478	20,888	10,755	77,692
Yadkin	9,769	11,645	10,431	5,856	37,701
Yancey	4,135	5,345	5,443	3,616	18,539

Population estimates are from the bridged-race population estimates obtained from the National Center for Health Statistics available online at www.cdc.gov/nchs/nvss/bridged_race/data_documentation.htm#vintage2009.

Appendix C: 2008 Population Estimates by Race, Sex and County

	White Males	White Females	Minority Males	Minority Females	Total
North Carolina					
Alamance	56,846	59,975	14,388	16,701	147,910
Alexander	16,929	16,768	1,674	1,215	36,586
Alleghany	5,351	5,399	163	112	11,025
Anson	6,396	6,180	6,542	6,071	25,189
Ashe	12,453	12,835	212	191	25,691
Avery	8,727	8,097	964	127	17,915
Beaufort	16,170	17,233	5,850	7,090	46,343
Bertie	3,397	3,598	6,026	6,445	19,466
Bladen	9,763	10,095	5,790	6,763	32,411
Brunswick	44,141	46,214	6,477	7,290	104,122
Buncombe	100,048	108,339	9,973	11,013	229,373
Burke	39,134	40,130	5,581	4,437	89,282
Cabarrus	68,835	70,182	14,009	15,533	168,559
Caldwell	36,777	37,940	2,551	2,594	79,862
Camden	3,923	3,998	799	912	9,632
Carteret	28,221	29,674	2,772	2,880	63,547
Caswell	7,643	7,448	4,092	4,006	23,189
Catawba	68,252	69,940	9,333	9,982	157,507
Chatham	26,334	26,841	4,786	5,412	63,373
Cherokee	12,259	13,241	522	539	26,561
Chowan	4,468	4,802	2,429	2,989	14,688
Clay	4,904	5,203	92	102	10,301
Cleveland	37,279	39,832	10,192	11,731	99,034
Columbus	17,193	18,277	8,749	10,074	54,293
Craven	35,496	36,205	12,106	13,594	97,401
Cumberland	88,031	88,598	62,591	71,466	310,686
Currituck	10,914	11,144	995	1,107	24,160
Dare	16,297	16,275	723	757	34,052
Davidson	69,168	71,056	8,311	9,456	157,991
Davie	18,635	19,204	1,574	1,669	41,082
Duplin	19,719	18,872	6,628	7,806	53,025
Durham	75,290	74,772	52,417	60,569	263,048
Edgecombe	10,816	11,224	13,740	16,619	52,399
Forsyth	123,896	130,033	46,590	54,621	355,140

Population estimates are from the bridged-race population estimates obtained from the National Center for Health Statistics available online at www.cdc.gov/nchs/nvss/bridged_race/data_documentation.htm#vintage2009.

Appendix C (continued): 2008 Population Estimates by Race, Sex and County

	White Males	White Females	Minority Males	Minority Females	Total
Franklin	21,243	21,283	7,807	8,696	59,029
Gaston	83,715	87,848	16,386	18,884	206,833
Gates	3,737	3,712	2,033	2,264	11,746
Graham	3,527	3,737	359	357	7,980
Granville	19,409	17,523	11,305	8,850	57,087
Greene	6,436	5,674	4,768	3,776	20,654
Guilford	146,983	154,663	80,666	91,796	474,108
Halifax	10,884	11,944	15,323	16,943	55,094
Harnett	41,460	42,530	13,324	14,711	112,025
Haywood	26,629	28,813	684	749	56,875
Henderson	47,254	50,309	2,308	2,512	102,383
Hertford	4,102	4,319	7,215	7,721	23,357
Hoke	11,848	11,774	9,571	10,455	43,648
Hyde	1,717	1,544	1,206	793	5,260
Iredell	65,523	66,920	10,835	12,335	155,613
Jackson	15,296	16,117	2,671	2,705	36,789
Johnston	67,804	67,281	13,528	14,698	163,311
Jones	3,228	3,309	1,584	1,839	9,960
Lee	23,055	23,236	5,956	6,888	59,135
Lenoir	15,999	16,907	10,825	12,943	56,674
Lincoln	34,394	34,827	2,672	2,849	74,742
McDowell	20,447	20,923	1,404	1,138	43,912
Macon	15,253	16,877	518	454	33,102
Madison	9,786	10,141	249	194	20,370
Martin	6,145	6,736	4,729	5,877	23,487
Mecklenburg	291,389	289,577	145,921	165,569	892,456
Mitchell	7,608	7,819	150	114	15,691
Montgomery	10,738	10,660	3,246	3,063	27,707
Moore	34,814	37,317	6,391	7,509	86,031
Nash	28,118	29,648	17,041	19,318	94,125
New Hanover	77,232	81,015	15,827	18,624	192,698
Northampton	4,113	4,267	5,615	6,464	20,459
Onslow	74,715	57,036	19,601	17,881	169,233
Orange	48,159	52,470	12,170	14,186	126,985
Pamlico	4,685	4,757	1,579	1,409	12,430

Population estimates are from the bridged-race population estimates obtained from the National Center for Health Statistics available online at www.cdc.gov/nchs/nvss/bridged_race/data_documentation.htm#vintage2009.

Appendix C (continued): 2008 Population Estimates by Race, Sex and County

	White Males	White Females	Minority Males	Minority Females	Total
Pasquotank	12,057	12,518	8,090	8,777	41,442
Pender	20,429	20,294	5,148	5,363	51,234
Perquimans	4,520	4,862	1,541	1,849	12,772
Person	13,027	13,502	5,061	5,911	37,501
Pitt	48,488	51,196	25,524	30,727	155,935
Polk	8,578	9,496	533	625	19,232
Randolph	64,276	65,827	5,235	5,625	140,963
Richmond	15,065	15,207	7,681	8,075	46,028
Robeson	23,513	23,006	39,291	42,886	128,696
Rockingham	35,830	37,629	8,691	9,964	92,114
Rowan	57,041	58,552	11,788	12,358	139,739
Rutherford	26,753	29,023	3,683	3,977	63,436
Sampson	21,839	21,678	9,581	10,339	63,437
Scotland	8,862	9,459	8,759	9,400	36,480
Stanly	25,238	25,943	4,274	4,230	59,685
Stokes	21,229	22,293	1,244	1,374	46,140
Surry	33,493	35,180	1,809	1,906	72,388
Swain	4,543	4,857	1,955	2,022	13,377
Transylvania	13,551	14,664	893	1,047	30,155
Tyrrell	1,235	1,115	1,084	670	4,104
Union	82,458	82,427	13,804	14,711	193,400
Vance	10,222	10,920	10,013	11,835	42,990
Wake	320,276	317,102	109,494	121,196	868,068
Warren	3,882	3,917	5,736	5,995	19,530
Washington	3,057	3,180	3,144	3,578	12,959
Watauga	21,879	21,997	785	760	45,421
Wayne	36,800	37,268	18,433	20,918	113,419
Wilkes	31,248	31,946	1,752	1,779	66,725
Wilson	22,742	23,301	14,505	17,144	77,692
Yadkin	17,768	18,329	786	818	37,701
Yancey	9,028	9,145	188	178	18,539

Population estimates are from the bridged-race population estimates obtained from the National Center for Health Statistics available online at www.cdc.gov/nchs/nvss/bridged_race/data_documentation.htm#vintage2009.

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